

LAKE TAHOE BASIN FRAMEWORK IMPLEMENTATION REPORT

D R A F T

Prepared for:



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of Engineers®
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EXECUTIVE SUMMARY	ES-1
About the Framework Report.....	ES-1
Framework Study Process.....	ES-1
Comprehensive Federal EIP Program	ES-2
Element II - Baseline Conditions - SNPLMA EIP Project Nomination and Selection Process	ES-3
Elements I and III Proposed Enhancements	ES-5
Report Conclusions	ES-5
Continued Development of the Comprehensive Framework Program.....	ES-5
Implementing Successful Change.....	ES-6
1.0 THE LAKE TAHOE BASIN FRAMEWORK STUDY.....	1
1.1 Purpose of the Framework Study.....	1
1.2 Background	3
1.3 Authorizing Language	3
1.4 Considerations.....	3
1.4.1 Watershed Approach.....	3
1.4.2 Building on Previous Successes.....	4
1.4.3 Respect for Work Completed Previously	4
1.4.4 Implementation of an Open Process	4
1.5 Framework Study Scope	4
1.5.1 EIP Implementation	5
1.5.2 Technical Evaluations	5
1.6 Framework Study Accomplishments	5
1.7 Framework Report Products	6
2.0 PERTINENT REPORTS, ENTITIES, LEGISLATION AND ACTIVITIES	9
2.1 Reports and Studies	9
2.2 Tahoe Basin Agencies and Entities.....	12
2.3 Historical Legislation and Activities	14
3.0 BASELINE CONDITIONS – ELEMENT II	17
3.1 Southern Nevada Public Land Management Act	17
3.2 SNPLMA Amendments.....	17
3.3 SNPLMA Amendment Implementation Agreement - EIP Project Nomination and Selection Process	18
4.0 STUDY PROCESS.....	21
4.1 Identification of Opportunities and Objectives.....	21
4.2 Development of Measures	24
4.3 Development of Enhancements.....	24
4.3.1 Three Elements of a Comprehensive Framework.....	24
4.3.2 Development of Stakeholder Team-Proposed Enhancements – Element I	29

4.3.3	Baseline Conditions – SNPLMA EIP Project Nomination and Selection Process – Element II	29
4.3.4	Development of Study Team-Proposed Enhancements – Element III	31
4.3.5	Technical Evaluations	32
4.3.6	Transportation Concerns	34
5.0	STAKEHOLDER TEAM-PROPOSED ENHANCEMENTS – ELEMENT I.....	37
5.1	Management Related Enhancements - Federal Agency EIP Management Unit	37
5.1.1	Correlating Objectives	37
5.2	Federal Agency Capability Enhancements.....	38
6.0	STUDY TEAM-PROPOSED ENHANCEMENTS – ELEMENT III	43
7.0	REPORT CONCLUSIONS.....	45
7.1	Proposed Enhancements Related to Elements I and III.....	45
7.1.1	Element I - Stakeholder Team Enhancements	45
7.1.2	Element III - Study Team Enhancements	45
7.2	Baseline Conditions – Element II	46
7.3	Continued Development of the Comprehensive Framework Program	46
7.3.1	Implementing Successful Change	46

List of Figures

Figure ES-1. Framework Study Process Overview	ES-2
Figure ES-2. Overview of the Elements of a Comprehensive Framework.....	ES-3
Figure ES-3. Comprehensive Framework for Federal EIP Implementation.....	ES-4
Figure 1. Tahoe Basin Location Map	2
Figure 2. Comprehensive Framework Elements Overview	6
Figure 3. Framework Study Process Overview	7
Figure 4. Pertinent Tahoe Basin Legislative Actions	15
Figure 5. SNPLMA EIP Project Nomination & Selection Process	19
Figure 6. Framework Study Process	22
Figure 7. Elements of a Comprehensive Framework.....	30
Figure 8. EIP Management System	38
Figure 9. Comprehensive Framework for Federal EIP Implementation.....	49

List of Tables

Table 1. Pertinent Historical Reports and Studies	9
Table 2. Findings of the 1974 USEPA Lake Tahoe Study	12
Table 3. Influential Tahoe Basin Agencies and Entities.....	13
Table 4. EIP Implementation Opportunities Statements.....	23
Table 5. Objectives for Improving the EIP Implementation Process	23
Table 6. Objectives and Example Measures Developed by the Study Team and Stakeholders	25

Table 7. Program Clarifications and Expanded and New Authorities.....	39
Table 8. Study Team Enhancements.....	43

List of Appendices

Appendix A. Pertinent Framework Study Correspondence	
Appendix B. SNPLMA Amendment	
Appendix C. Historical Conditions	
Appendix D. Stakeholder Team-Developed EIP Project Nomination and Selection Process	
Appendix E. Framework Study Process Timeline	
Appendix F. Bibliography	
Appendix G. Agency Position Letters	

ACRONYMS AND ABBREVIATIONS

1969 Compact	Tahoe Regional Planning Compact of 1969
1974 Study	USEPA Lake Tahoe Study of 1974
1980 Compact	Tahoe Regional Planning Compact of 1980
BLM	Bureau of Land Management
CalTrans	California Department of Transportation
CO	Carbon Monoxide
Coalition	Lake Tahoe Transportation and Water Quality Coalition
Framework Report	Lake Tahoe Basin Framework Implementation Study Report
Corps	U.S. Army Corps of Engineers
CTC	California Tahoe Conservancy
DCSID	Douglas County Sewer Improvement District
E.O.	Executive Order
EIP	Environmental Improvement Program
ETCC's	Environmental Threshold Carrying Capacities
FAMU	Federal Agency EIP Management Unit
FHWA	Federal Highway Administration
Framework Study	Lake Tahoe Basin Framework Implementation Study
FTA	Federal Transit Authority
FY	Fiscal Year
League	League to Save Lake Tahoe
LTBEC	Lake Tahoe Basin Executives Committee
LTEEC	Lake Tahoe Environmental Education Coalition
LTFAC	Lake Tahoe Federal Advisory Committee
LTBMU	Lake Tahoe Basin Management Unit
MTBE	Methyl Tertiary Butyl Ether
NDEP	Nevada Division of Environmental Protection
NDOT	Nevada Department of Transportation
NLTRA	North Lake Tahoe Resort Association
NRCS	Natural Resources Conservation Service
NTPUD	North Tahoe Public Utility District
O ₃	Ozone
P.L.	Public Law
Partnership	Tahoe Federal Interagency Partnership
Reclamation	U.S. Bureau of Reclamation
RTPA	Regional Transportation Planning Agency
RWQCB	Regional Water Quality Control Board
SEZ	Stream Environment Zone

SNPLMA	Southern Nevada Public Land Management Act
STPUD	South Tahoe Public Utilities District
SWRCB	State Water Resources Control Board
Tahoe Basin	Lake Tahoe Basin
TMPO	Tahoe Metropolitan Planning Organization
TREX	Tahoe Regional Executives Committee
TRG	Tahoe Research Group
TRPA	Tahoe Regional Planning Agency
TTD	Tahoe Transportation District
UC	University of California
USDOT	U.S. Department of Transportation
USEPA	U.S. Environmental Protection Agency
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WRDA	Water Resources Development Act

EXECUTIVE SUMMARY

The Lake Tahoe Basin Framework Implementation Study (Framework Study) is a watershed study conducted by the Sacramento District of the U.S. Corps of Engineers (Corps) to clarify challenges for Federal agencies to accomplish basin-wide, programmatic implementation of the Environmental Improvement Program (EIP), and place them in the context of today's political, social and natural environment. The EIP is a coordinated Federal, State, regional, and local clearinghouse that includes capital projects, research and scientific activities, program support and technical assistance, and operations and maintenance activities.

The Lake Tahoe Framework Implementation Report (Framework Report) documents the results of the Framework Study and presents proposed enhancements – by the stakeholder team, the Lake Tahoe Transportation and Water Quality Coalition (Coalition), its invited participants and the Corps' study team – to the authorities, missions, mandates, policies and procedures of Federal agencies in the region. These enhancements represent a comprehensive approach to resolve challenges to basin-wide restoration projects and programs. These enhancements are for consideration by Congress and Federal agency management. The Framework Report is for information only and does not represent an agency position or serve as a decision document under the Federal process.

About the Framework Report

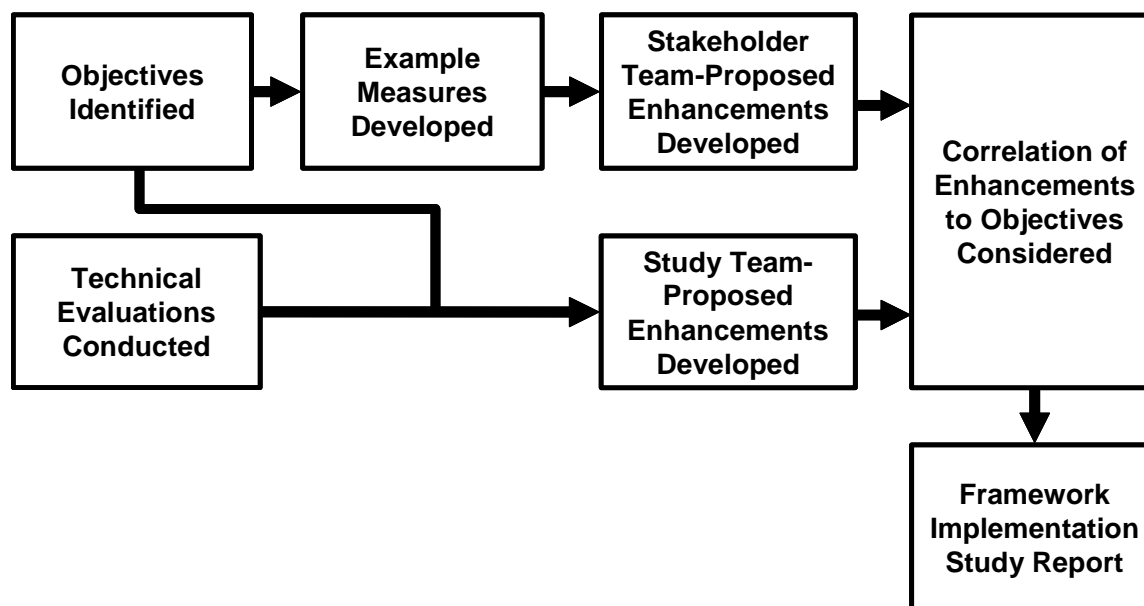
The Framework Report contains three elements that collectively represent a comprehensive approach for improving the efficiency and effectiveness of Federal EIP implementation at site-specific and basin-wide levels. These elements include:

- Element I. EIP Management and Federal Agency Capability Enhancements
- Element II. Baseline Conditions of the Southern Nevada Public Land Management Act of 1998 (SNPLMA) EIP Project Nomination and Selection Process
- Element III. Program Management and General Enhancements

The process by which the study team identified, analyzed, and presented these elements involved the active participation of Federal, State, regional, and local agencies, as well as environmental and business interests from the private sector (stakeholders). In addition, several other entities were consulted, including the Coalition, the Tahoe Regional Executives Committee (TREX), and the Lake Tahoe Basin Executives Committee.

Framework Study Process

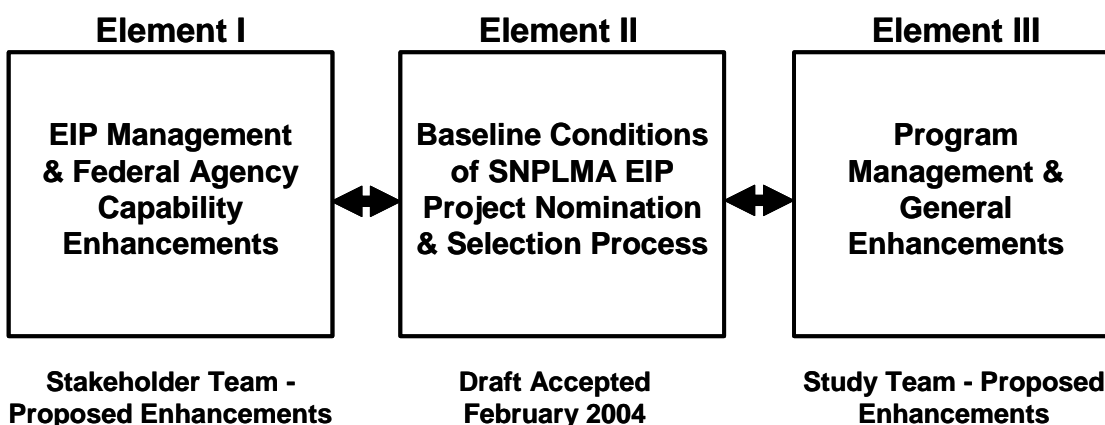
Figure ES-1 shows the Framework Study process that contributed to development of Elements I and III. The process included a two-track approach that resulted in the development of proposed enhancements. All enhancements began with stakeholders and the study team identifying a series of objectives, which were based on goals – rather than problems – necessary to achieve basin-wide, programmatic Federal EIP implementation. Stakeholders, with study team assistance, then developed example measures that would meet the identified objectives. These measures served as a foundation for development of stakeholder team enhancements – as expressed in Element I – for consideration by Congress.

Figure ES-1. Framework Study Process Overview

The second track of the process was completed by the study team and initiated four technical evaluations. These technical evaluations were intended to provide information to justify and supplement the existing environmental threshold standards used in the Lake Tahoe Basin (Tahoe Basin) for EIP management and priorities. Based on the technical evaluations and the stakeholder objectives, the study team then developed program management and other general enhancements – as expressed in Element III – for consideration by Congress and Federal agency management.

Comprehensive Federal EIP Program

While Elements I and III include enhancements specific to individual agencies or current Tahoe Basin management practices, Element II represents the SNPLMA EIP Project Nomination and Selection Process required by a recent amendment to SNPLMA. The amendment spurred the identification and development of many enhancements included in Elements I and III. Through these enhancements, stakeholders and the study team believe that Federal agencies would have the mechanisms and resources necessary to begin to realize the objectives developed during the Framework Study and opportunities provided by the SNPLMA amendment. The three elements and their enhancements are shown in Figure ES-2 and summarized below.

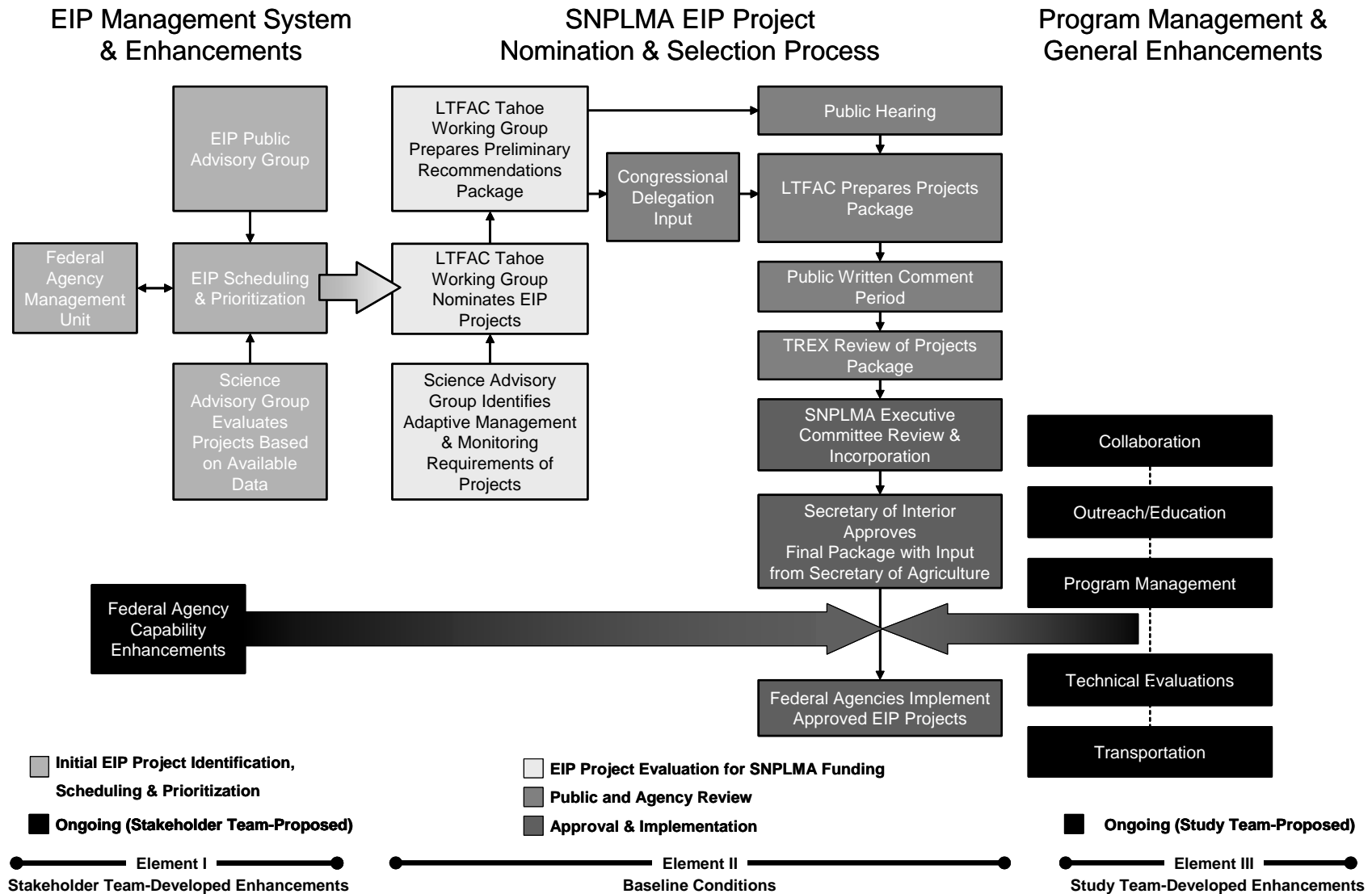
FIGURE ES-2. Overview of the Elements of a Comprehensive Framework**Element II - Baseline Conditions - SNPLMA EIP Project Nomination and Selection Process**

Congressional authorization of the SNPLMA amendment provided about \$37.5 million per year – until a maximum of \$300 million is approved – of new, reliable, and dedicated funding to the Tahoe Basin for Federal EIP implementation. In approving the amendment, Congress required development of an implementation process to be formally accepted by the SNPLMA Executive Committee. This requirement created a new baseline for how basin-specific projects are identified, funded, and monitored.

This baseline was established when stakeholders – through multiple meetings supported by the Framework Study – developed a draft implementation agreement as required by the amendment. Participants in the development of the draft agreement included Federal, state, regional, private, and public stakeholders. These included the Corps, U.S. Forest Service, U.S. Environmental Protection Agency, Nevada Division of State Lands, California Tahoe Conservancy, Lake Tahoe Federal Advisory Committee (LTFAC), Tahoe Regional Planning Agency (TRPA), and the Desert Research Institute. The agreement is a Federal, state, and local partnership whereby Federal EIP projects in the Tahoe Basin are identified, nominated, and selected.

The process is supported by the Lake Tahoe Science Advisory Group through evaluation of projects based on available data. The process also includes multiple opportunities for public participation. Figure ES-3 shows the proposed EIP Management System and Enhancements, SNPLMA EIP Project Nomination and Selection Process, and Program Management and General Enhancements (Elements I, II, and III, respectively).

Figure ES-3. Comprehensive Framework for Federal EIP Implementation



Elements I and III Proposed Enhancements

Currently, a number of agency programs do not have the capability to take full advantage of SNPLMA. To realize the full potential of the SNPLMA Amendment and to remove historical impediments to basin-wide EIP implementation, the stakeholder team developed a series of program clarifications and enhancements to the missions, mandates, and authorities of Federal agencies operating in the Tahoe Basin. As a result, some enhancements focus on maximizing the potential of the SNPLMA Amendment by providing implementing agencies the flexibility to use the new funding in ways that their current programs may not allow (for example, grants). Other enhancements focus on allowing agencies to perform their responsibilities in the Tahoe Basin more effectively in order to complement the SNPLMA funding. Enhancements as they relate to Elements I and III include:

Element I. Stakeholder Team EIP Management and Federal Agency Capability Enhancements

- Federal Agency EIP Management Unit (FAMU)
 - Establishment of the FAMU is essential in order to meet the objectives and basic implementing measures that key Federal agencies agreed to as part of the Framework Study. The FAMU, a management system, is designed to organize, prioritize, and schedule all Federal agencies' EIP projects based on a variety of factors including agency capacities and authorities, as well as potential opportunities to consolidate similar projects. One of the principal goals of the FAMU is to ensure that projects nominated in the SNPLMA process for the Tahoe Basin have been thoroughly analyzed and prioritized prior to consideration. The FAMU would be operated as a partnership among TRPA and Federal agencies wishing to participate in implementing EIP projects in the Tahoe Basin.
- Federal Agency Capability Enhancements
 - Developed by the stakeholder team, the Federal Agency Capability Enhancements are legislative improvements that would help realize (1) objectives developed during the Framework Study process and (2) opportunities provided by SNPLMA. The Coalition and its public partners believe these enhancements would benefit EIP implementation.

Element III. Study Team Program Management and General Enhancements

- Program Management and General Enhancements
 - Developed by the study team, these enhancements focus on program management and other issues as they relate to collaboration, outreach/education, and transportation, as well as enhancements related to technical evaluations conducted by the Corps.

Report Conclusions

Continued Development of the Comprehensive Framework Program

While recognizing the constraints of the study, the study team concluded that in order to develop a comprehensive framework (that is, integrating Elements I, II, and III), additional future considerations are necessary.

The focus of these considerations should be to identify and analyze the potential implications of implementing a comprehensive framework program and presenting the results in a programmatic or comprehensive document. Specifically, the intended and unintended consequences of implementing Elements I and III (for example, identifying effects on existing non-Federal programs or State agencies) and programmatic environmental effects should be fully considered. Further, the manner in which implementation of Elements I and III would interrelate to and be affected by Element II should be considered carefully.

A focus on continued development of the infrastructure and processes of a comprehensive framework will:

- Capitalize on the momentum generated during the Framework Study and the stakeholders' activities.
- Result in consistent progress toward improvement of water quality in Lake Tahoe.
- Assist in the attainment of the Environmental Threshold Carrying Capacities used to measure environmental improvement in the Tahoe Basin.
- Allow for efficient use of Federal agency resources (including staff resources and SNPLMA funding).

Implementing Successful Change

Development of the infrastructure and processes needed to support a comprehensive framework is critical to the ongoing success in the Tahoe Basin. Ongoing assessment of the effects of implementing Elements I and III, as well as interrelating all elements, will likely reveal additional processes and infrastructure needed to address the complex and evolving needs of the Tahoe Basin. Some of these include:

- Development of the agency policies and processes surrounding implementation.
- Definition of roles and responsibilities of entities involved.
- Definition of coordination and communication strategies for entities directly and indirectly involved.
- Definition of a structure to ensure accountability.
- Definition of public participation in the processes.
- Definition of staffing and funding requirements.

The success of the enhancements will require that the implementing agencies have the flexibility to respond to these evolving needs while being sensitive to other Tahoe Basin processes and programs. The existing stakeholder collaboration and congressional interest currently create an environment for implementing successful change in the Tahoe Basin.

1.0 THE LAKE TAHOE BASIN FRAMEWORK STUDY

1.1 Purpose of the Framework Study

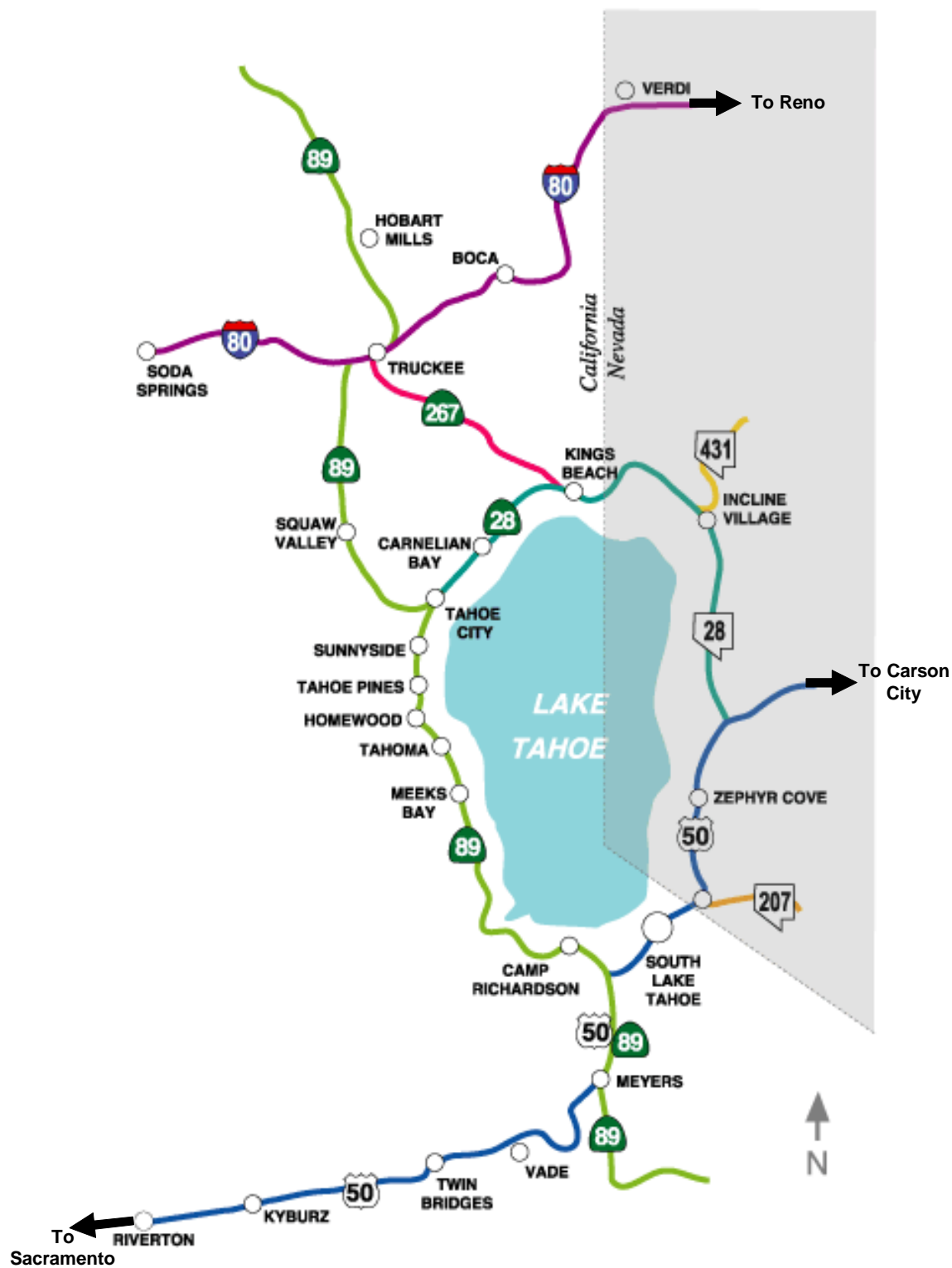
The Lake Tahoe Basin Framework Implementation Study (Framework Study) and this resulting Lake Tahoe Basin Framework Implementation Study Report (Framework Report) are intended to provide decision makers (that is, Congress and Federal agency management) with the information necessary to determine logical changes to the current operating processes of Federal agencies working in the Lake Tahoe Basin (Tahoe Basin) (see Figure 1). The framework of activities developed as a part of the Framework Study and detailed in this Framework Report are intended to improve efficiencies and effectiveness of Federal implementation of the existing Tahoe Basin environmental restoration program, the Environmental Improvement Program (EIP).

In June 2003, Senators Harry Reid (D-Nevada) and John Ensign (R-Nevada) announced efforts to amend the Southern Nevada Public Land Management Act of 1998 (SNPLMA) (Public Law (P.L.) 105-263) to direct funds to the Tahoe Basin specifically for EIP project implementation. Following this announcement, the U.S. Army Corps of Engineers study team recognized that the changes resulting from the amendment effort needed to be incorporated into the Framework Study. As a result, the purpose of the Framework Study was adjusted to include development of (1) implementation processes required by SNPLMA, and (2) enhancements to current processes and activities in the Tahoe Basin that would improve the likelihood of successful EIP implementation.

The Framework Study featured active participation by local, regional, state, and Federal agencies along with environmental and business interests from the private sector (collectively, "stakeholders"). In addition, a number of organizing entities were consulted, such as the Lake Tahoe Federal Advisory Committee (LTFAC), Lake Tahoe Transportation and Water Quality Coalition (Coalition), the Tahoe Regional Executives Committee (TREX), and the Lake Tahoe Basin Executives Committee (LTBEC). (See Appendix C for a discussion of the mission of these entities.)

The study team, with assistance from the Coalition and its invited participants (hereinafter "stakeholder team") worked to complete the Framework Study. The study resulted in (1) identification of opportunities for improvement in the Tahoe Basin, (2) development of the EIP Project Nomination and Selection Process in accordance with the SNPLMA, (3) development of stakeholder team-proposed enhancements to present processes and activities that would insure productive use of approximately \$37.5 million per year up to a maximum of \$300 million approved to Federal Tahoe Basin agencies through SNPLMA for EIP implementation, (4) development of study team-proposed enhancements, and (5) identification of future considerations necessary to continue development of a comprehensive framework for successful Federal EIP implementation.

Figure 1. Tahoe Basin Location Map



Source: Caltrans 2003

1.2 Background

Many reports have been prepared addressing the challenges of working within the Tahoe Basin which suggests that changes must be made and new strategies implemented to ensure that implementation of environmental restoration projects is effective and efficient. As early as the 1974 U.S. Environmental Protection Agency's (USEPA) Lake Tahoe Study (1974 Study), changes in Federal policy in the Tahoe Basin were being proposed. More recently, in 2001, the Threshold Evaluation Report, completed by the Tahoe Regional Planning Agency (TRPA), once again identified the inefficiencies of existing EIP implementation and stated as one of its strategies to "ensure resources coming into the [Tahoe] Basin are being used effectively and efficiently for EIP projects."

Even with these recommendations, the "environment" at that time was not right for change. In 2003 and in early 2004, a combination of congressional interest (see Appendix A, Pertinent Framework Study Correspondence), local involvement, and new legislation that provides consistent funding for the Tahoe Basin (SNPLMA Amendment (P.L. 108-108), text provided in Appendix B) has created a unique opportunity. With this combination of interest and activity, the opportunity to develop the solutions necessary to move beyond recognition of problems in the Tahoe Basin to improving implementation and management of the EIP is now reasonably attainable.

1.3 Authorizing Language

The Framework Study was authorized in 2001 by the 2002 Energy and Water Development Appropriations Act (P.L. 107-66). The Act stated . . . "the Secretary of the Army, acting through the Chief of Engineers, is directed to conduct a comprehensive watershed study at full Federal expense to provide a framework for implementing activities to improve the environmental quality of the Tahoe Basin and the Secretary shall submit a feasibility level report within 30 months of the enactment of this Act." Under this direction, the Corps initiated the Framework Study.

1.4 Considerations

Upon initiating the Framework Study, the study team realized the long history of work in the Tahoe Basin. This work included completion of studies and reports; implementation of legislative, regulatory, and process initiatives; and development of strong local coalitions in a collaborative environment. As a result, the study team approached the Framework Study with several considerations in mind. These considerations are presented below.

1.4.1 Watershed Approach

As awareness of environmental issues has grown, agencies have initiated a watershed approach for natural resource management and restoration studies and efforts. As a result, the Framework Study was conducted with consideration of the entire Tahoe Basin watershed—that is, the study team considered the entire watershed when proposing enhancements for implementation. The goal of each proposed enhancement is to ultimately provide a positive effect on the overall health of the Tahoe Basin watershed.

1.4.2 Building on Previous Successes

Efforts to preserve and/or restore the Tahoe Basin environment have been on-going for many years. As a result, numerous studies have been completed, agreements formalized, laws and regulations implemented, and informal collaboration conducted. The Framework Study attempted to build on this wealth of information and previous success. Appendix C provides a detailed list of historical information considered during the Framework Study. The main components considered during the Framework Study process were as follows:

1. The Tahoe Regional Planning Compact of 1969 (1969 Compact) that created TRPA and confirmed the need for bi-state and Federal regulatory power to sustain the environmental values of the Tahoe Basin.
2. The Environmental Threshold Carrying Capacities (ETCC's) used to measure environmental success in the Tahoe Basin.
3. The EIP perceived as the mechanism for attaining environmental sustainability in the Tahoe Basin.
4. The efforts of Federal agencies to successfully implement EIP projects.
5. Development of partnerships, including the LTFAC, the Basin Executives, the Lake Tahoe Federal Interagency Partnership (Partnership), the Coalition, and their role in developing Federal implementation strategies for EIP projects.

As the study progressed, the SNPLMA Amendment was developed and passed into law. As a result, this act provided yet another opportunity to build on previous successes.

1.4.3 Respect for Work Completed Previously

The study team recognized that work already completed should not be duplicated, but that this work could be enhanced. The study team worked with local entities to determine those areas requiring additional evaluation or information that did not have an avenue for completion. This work is discussed in Section 1.5.2 and Section 4.3.5.

1.4.4 Implementation of an Open Process

The study team sought input from Tahoe Basin specialists in Federal program implementation and state, local, and regional specialists in EIP project implementation. The study team attempted to provide an open decision process based on consensus whenever possible. This Framework Report does not represent any agency position.

1.5 Framework Study Scope

After receiving congressional direction and appropriations to complete the Framework Study in October 2001, the study team engaged stakeholders to determine their primary needs with regard to implementation of the EIP. After working with stakeholders, two areas of interest were identified for the Framework Study including:

- The Federal agency process as it relates to EIP implementation.

- Technical evaluations aimed at defining baseline information needed to supplement and justify environmental threshold standards for the Tahoe Basin.

1.5.1 EIP Implementation

Stakeholders noted that the EIP is the clearinghouse for projects aimed at reversing adverse effects to the Tahoe Basin generally, and to improving the water clarity of Lake Tahoe specifically. Based on this feedback, the study team focused on Federal agency EIP project implementation recognizing that all projects aimed at improving the environmental quality eventually become a project within the EIP. Therefore, the Framework Study considered how Federal agencies could work together to improve implementation.

1.5.2 Technical Evaluations

Based on stakeholder input and their defined need for additional technical information to justify and supplement the existing environmental threshold standards, a measure that provides an indication of environmental change, for the Tahoe Basin, the Corps initiated four technical evaluations. Evaluations focused on (1) a risk evaluation and corrective action plan for shore zone wastewater lines, (2) an evaluation of the nutrient contribution from groundwater to Lake Tahoe, (3) an evaluation of the nutrient and sediment contribution from stream erosion to Lake Tahoe, and (4) an evaluation of the status of stormwater master planning in the Tahoe Basin.

In addition to these four technical evaluations, the Corps also initiated an effort to formalize the collaborative process in the Tahoe Basin. This effort focused on working with a diverse group of interested entities to determine if a collaborative process could be used to set public policy.

The four technical evaluations and the collaborative process study are more fully discussed in Section 4.0. These studies assisted the scientific and regulatory communities to more fully understand the Tahoe Basin watershed. As appropriate, outcomes from each of the studies have been used to develop study team-proposed enhancements (Element III) as described in Section 6.0.

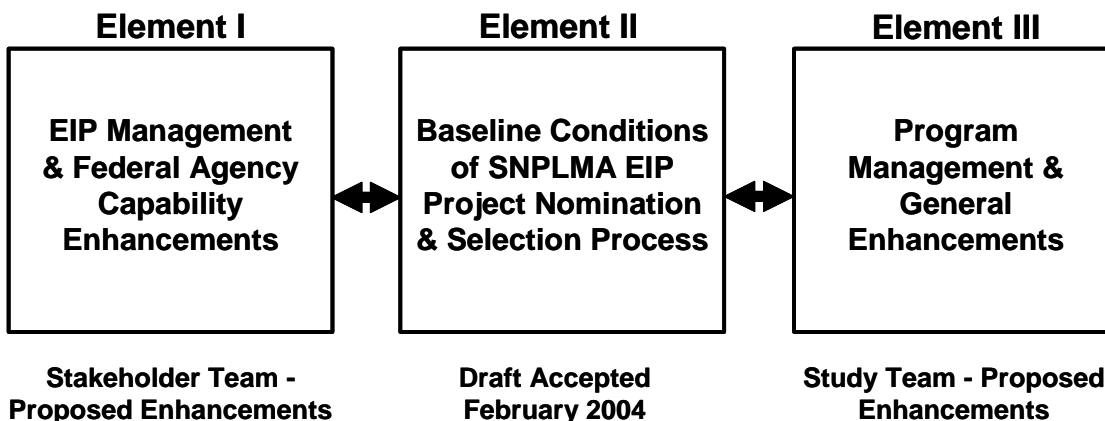
1.6 Framework Study Accomplishments

The Framework Study clarified and synthesized the reoccurring problems that have been identified in the Tahoe Basin during the past three decades and placed them in the context of today's political and social environment (Section 4.0).

The Framework Study also formalized the dialogue regarding Federal challenges of implementing and managing the EIP, opportunities to improve Tahoe Basin management and implementation practices, and identification of objectives that stakeholders envision for the future of the Tahoe Basin. The stakeholder team was able to work together, with assistance from the study team, to develop proposed enhancements to some very complex problems (Section 5.0). The study team developed additional proposed enhancements (Section 6.0). This Framework Report also introduces some future considerations necessary to continue development of a comprehensive framework for Federal EIP implementation (Section 7.0).

During the development of the Framework Study and the Framework Report, the study team realized that three distinct elements should be included in a comprehensive Federal EIP program. The three elements are presented in Figure 2 and described in the following sections.

FIGURE 2. Comprehensive Framework Elements Overview



Element II is a component of the SNPLMA Amendment and as such is considered the baseline conditions for the Framework Study (see Section 3.0). Elements I and III were developed based on Framework Study efforts and stakeholder team- and study team-proposed enhancements as described in Sections 5.0 and 6.0.

The Framework Report sets the stage for future environmental success in the Tahoe Basin. It should be recognized that this report only presents a framework. The enhancements to current processes and activities proposed in this report were generated within the schedule and budget constraints of the Framework Study. As such, the breadth and depth of each proposed enhancement varies from agency to agency and concept to concept. Similarly, the complexity and nature of the enhancement and related agency structure also shaped the breadth and depth of enhancement development. Consequently, future considerations for each enhancement will also vary in complexity.

Following this Framework Study, effort should continue to specifically develop the implementation requirements and guidance necessary to fully and successfully implement the proposed enhancements or Elements I and III. Future efforts will be necessary to adequately define roles, responsibilities, and authorities of Federal agencies and participating entities to ensure continued success in EIP implementation and management. These efforts are discussed in Section 7.0.

1.7 Framework Report Products

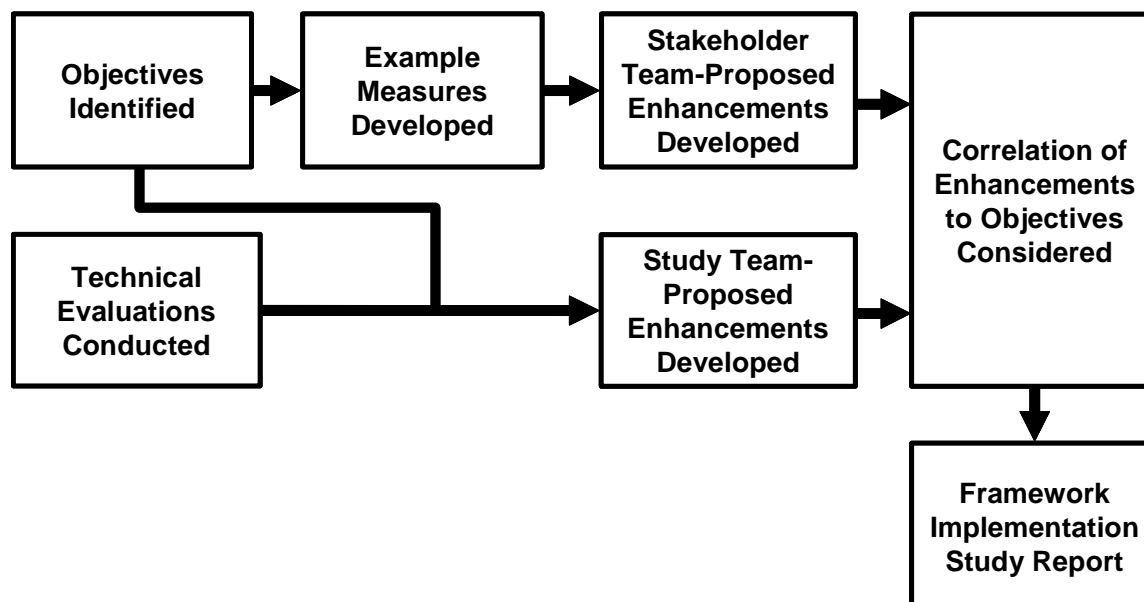
The following sections of this Framework Report provide a description of the process and outcomes of the Framework Study effort as it relates to determining opportunities for improving efficiency and effectiveness of Federal agency EIP implementation. Federal agency and stakeholder participation in the process was key to defining the opportunities and solutions to ensure more effective EIP implementation.

The Framework Study process focused on identification of problems and opportunities and developed a framework of initial steps, to valid solutions. Figure 3 presents an overview of the process. Section 2.0 of this report provides a summary of the pertinent information considered in the study process. Section 3.0 provides a description of the baseline conditions. Section 4.0 details the progression of the Framework Study, how the stakeholders were engaged, and the process used to develop proposed enhancements.

Products of this Framework Report include:

- The description of the Baseline Conditions (Element II), SNPLMA EIP Project Nomination and Selection Process (Section 3.0).
- A description of the opportunities and objectives identified as important to Tahoe Basin stakeholders (Section 4.0).
- A list of example measures that, if implemented, could facilitate achievement of the identified objectives (Section 4.0).
- The findings of technical evaluations conducted as a part of the Framework Study (Section 4.0).
- A description of stakeholder team-developed enhancements (Element I) that, if implemented, are intended to improve the potential for EIP implementation success (Section 5.0).
- A description of study team-developed enhancements (Element III) that, if implemented, are intended to improve the potential for EIP implementation success (Section 6.0).
- A list of example infrastructure and process needs that should be further considered to ensure the continued development of a comprehensive framework.

FIGURE 3. Framework Study Process Overview



2.0 PERTINENT REPORTS, ENTITIES, LEGISLATION AND ACTIVITIES

Much has been accomplished to preserve the environmental quality of the Tahoe Basin. Projects have been implemented, reports written, legislation enacted, activities initiated, and entities created—all with an aim toward improving the environmental quality of the Tahoe Basin. These successes have been the result of activities initiated as early as 1969 when the 1969 Compact was initially adopted and TRPA created.

This section provides information about reports, entities, legislation and activities pertinent to the Framework Study. Appendix C provides additional detail on these subjects.

2.1 Reports and Studies

Table 1 below summarizes the themes and issues of historical reports and studies. Several problems identified and the solutions proposed in the 1974 Study were similar to those identified during the Framework Study. These findings and potential solutions presented in the 1974 Study were considered during development of opportunities, objectives, and measures of the Framework Study.

Table 1. Historical Reports and Studies

Date	Title/Event	Parties/Authors	Themes/Issues
1974	Lake Tahoe Study	USEPA	Congress, in Section 114 of the Federal Water Pollution Control Act of 1972, directed a thorough and complete study on the adequacy of and the need for extending Federal oversight and control to preserve Lake Tahoe's resources. Additionally, the USEPA was to examine the interrelationships and responsibilities of the various agencies of the Federal, state, and local governments.
1978	Federal Policy for the Lake Tahoe Basin	Taskforce included USFS and 11 Federal agencies and departments with assistance from the States of California and Nevada and TRPA	The report provides a basis for coordinating Federal activities in the Tahoe Basin by setting forth guidelines for all agencies. Guidelines include (1) general policies of Federal agencies, (2) management of Federal land, (3) grants for planning and construction, (4) regulatory and enforcement, and (5) Federal policy implementation process.
1979	Role of the USFS and Other Federal Agencies in the Lake Tahoe Region	USFS, Region 5	The report provides a historical accounting of Federal agency activities and political processes at work in the Tahoe Basin since the early 1900's through 1979. The report discusses the hurdles faced by the agencies and by TRPA.
1979	Lake Tahoe Environmental Assessment	Western Federal Regional Council	The assessment analyzes the effect of development on the Tahoe Basin ecosystem and makes recommendations for addressing the Tahoe Basin's resulting environmental concerns. The Western Federal Regional Council recommended adoption of environmental threshold standards and associated carrying capacities in an effort to manage the environmental threats facing the Tahoe Basin.

Date	Title/Event	Parties/Authors	Themes/Issues
1980	Lake Tahoe Basin Water Quality Plan	California, TRPA	The plan restricts development of lots designated as high erosion hazard and located within SEZ's. This restricts development of approximately 12,000 parcels on steep slopes or near streams previously approved by TRPA and local government.
1981	Reaching Consensus on Environmental Thresholds and a Carrying Capacity for the Lake Tahoe Basin	Tahoe Federal Coordinating Council	Under E.O. 12247 and building on the Lake Tahoe Environmental Assessment of 1979, the report was a cooperative effort of participating agencies and the public to define Tahoe Basin values considered important.
1986	TRPA Regional Plan	TRPA	The Regional Plan is a comprehensive 20-year master planning document for the Tahoe Basin. It outlines the goals and policies that must be considered when implementing projects in the Tahoe Basin in an effort to maintain the special resources and meet environmental thresholds. The plan includes the Code of Ordinances, Goals and Policies, Water Quality Management Plan or the "208 Plan," Regional Transportation/Air Quality Plan, Plan Area Statement, Scenic Quality Improvement Plan, Capital Improvements Program, and a comprehensive monitoring program.
1988	Lake Tahoe Basin Management Unit Forest Plan	USFS	Unlike many national forest plans that emphasize resource extraction, the plan for the LTBMU emphasizes water quality protection. Additionally, the LTBMU also implements the statewide 208 Plan for forestlands.
1991	TRPA Regional Plan Update	TRPA	This plan updated the 1986 TRPA Regional Plan.
1994	Water Quality Control Plan for the Lahontan Region	Lahontan RWQCB	The Lahontan Basin Plan is the basis for the Lahontan RWQCB's regulatory program. It sets forth water quality standards for the surface and ground waters of the region (including Lake Tahoe), which include both designated beneficial uses of water and the narrative and numerical objectives that must be maintained or attained to protect those uses.
1998	Focused Action Plan – EIP	TRPA	The Focused Action Plan for the EIP is a compilation of implementation requirements for Basin efforts. It includes summaries and proposed schedules for projects, Tahoe program elements, studies, regulatory amendments, and funding requirements needed to realize threshold attainment.
2000	Evolution of Collaboration	TRPA	This report is a case study that evaluates the watershed management efforts used in the Tahoe Basin against criteria provided by the National Academy of Public Administration. The study considers the environmental and political history of the Tahoe Basin, TRPA development, implementation of the regional plan, and the collaborative efforts that occurred as a result.

Date	Title/Event	Parties/Authors	Themes/Issues
2001	Lake Tahoe Watershed Assessment Report	USFS Pacific Southwest Research Station	This report provides a thorough assessment of the Lake Tahoe watershed including human land use and environmental conditions; air quality; aquatic resources, water quality, and limnology; biological integrity; social, economic, and institutional assessment; and adaptive management strategy elements.
2001	Evaluation of Constraints Affecting Implementation of the EIP	Corps in cooperation with TRPA	The report identifies the institutional, technical, and social constraints to effective EIP implementation. It provides suggested alternatives for successful implementation.
2002	2001 Threshold Evaluation	Prepared by TRPA	The report presents TRPA's threshold attainment findings, makes analytical and corrective recommendations, and sets TRPA direction for the remainder of the 1987 Regional Plan and the future of the 2007 Regional Plan.
2002	Report to the Federal Interagency Partnership: Best Practices in Collaboration and Group Process Design	Prepared for the Pathway 2007 Team by Harriet Goldman & Associates	The report considers the collaborative processes of the Tahoe Basin as compared to a model of best practices as defined by many practicing facilitators in the world. It provides an accounting of the major strengths and weaknesses of the Tahoe Basin process.
2003	Stakeholder Belief Change in the Lake Tahoe Basin	Prepared for USFS Pacific Southwest Research Station by the UC Davis Center for Environmental Conflict Analysis	This report considers changes in stakeholder positions from 1970 to 2001 through analysis of four surveys completed by Tahoe Basin policy participants in 1970, 1984, 1990, and 2001.
2003	Program Management and Coordination Plan for the EIP	Prepared for Basin Executives, sponsored by Corps, CTC, TRPA, and USFS	The plan provides recommendations on program management and coordination alternatives to effectively implement the EIP.
Ongoing	LTBEC Annual and Mid-Year Progress Reports	LTBEC for the Partnership	As directed by the Federal Interagency Partnership Agreement, a mid-year and annual progress report is provided to Congress. The progress reports summarize current activities and future goals of the Partnership.

Both from a historical and contemporary perspective, the 1974 Study successfully captures a broad and still relevant set of critical issues. Table 2 summarizes those findings relevant to the Framework Study. Appendix C provides a more detailed summary of the 1974 Study.

Table 2. Findings of the 1974 USEPA Lake Tahoe Study

Problem Area	Proposed Findings
Federal Policy	Federal agencies in the Tahoe Basin are each implementing individual policies. Reconsider dissimilar policies to provide a cohesive statement of Federal policy for the Tahoe Basin.
	Designate the Tahoe Basin as an area of national significance.
	Define "coordination" as it relates to both process and results for Federal and non-Federal programs.
	Strengthen link between Federal agencies and TRPA. Possible structural fixes include increasing coordination by creating either a Federal Coordinators Committee or a Tahoe Executive Committee, or establishing a Federal Administrator.
Erosion and Sedimentation Control	Jointly establish source control measures with TRPA and Lahontan RWQCB.
	Ensure inspection and enforcement is fully funded.
	Create a program, including memorandum of understanding among Federal, regional, state, and local entities, which considers both land use and waste discharge controls.
	Provide research and demonstration grants to develop and demonstrate source control mechanisms.
	Determine appropriate Federal funding sources and authorization vehicles as required.
Transportation	Determine appropriate Federal funding sources and authorization vehicles as required.
Regulation of Private Development	Strengthen link between Federal agencies and TRPA. Possible structural fixes include increasing coordination by either creating a Federal Coordinators Committee or a Tahoe Executive Committee, or establishing a Federal Administrator.
	Fully fund the NRCS and resource conservation districts to provide technical assistance to private landowners.
Public Participation	Maximize public participation in the Federal decision process.

2.2 Tahoe Basin Agencies and Entities

Many entities have been involved in efforts to improve the environmental quality of the Tahoe Basin. Several Federal, state, and local agencies, as well as local entities, are key to the success of ongoing efforts and have the capability to bring about change. These influential entities are presented in Table 3 along with their missions and mandates. Appendix C, Historical Conditions, provides a more comprehensive accounting of the entities involved in Tahoe Basin activities.

Table 3. Influential Tahoe Basin Agencies and Entities

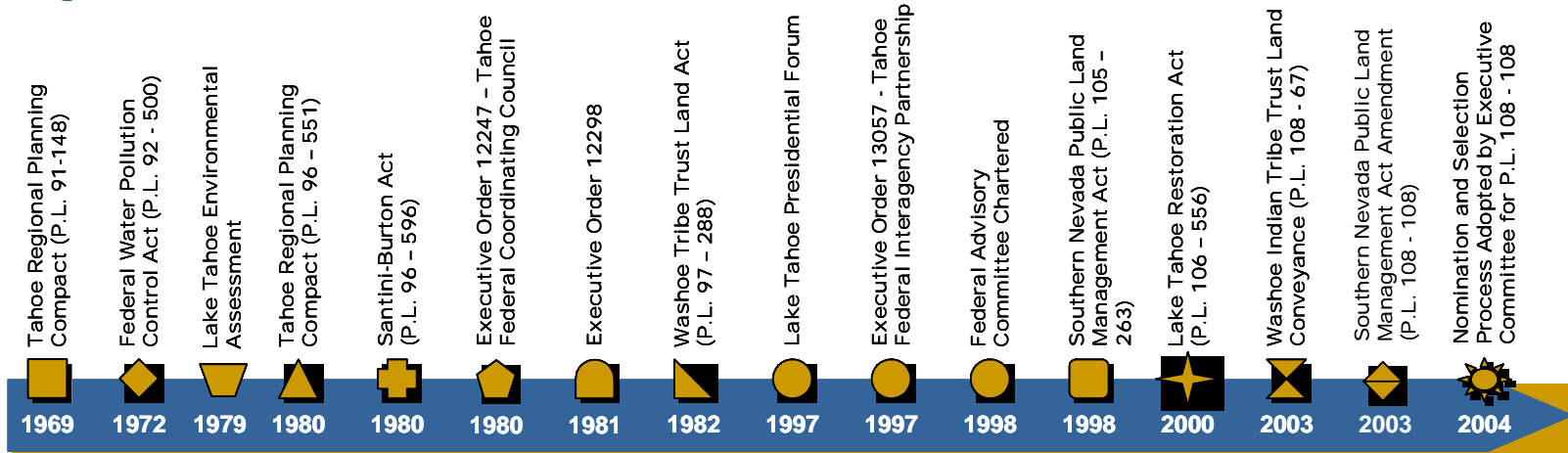
Agency	Mission/Mandate
Federal	
Corps	To provide quality, responsive engineering services to the nation including planning, designing, building and operating water resources and other civil works projects (navigation, flood control, ecosystem restoration, and watershed planning); designing and managing the construction of military facilities for the U.S. Army and U.S. Air Force (military construction); and providing design and construction management support for other defense and Federal agencies (interagency and international services).
FHWA	To create the best transportation system in the world for the American people through proactive leadership, innovation, and excellence in service.
FTA	Improve public transportation for communities in the United States.
Reclamation	To manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the public.
USDOT	To serve the United States by ensuring a fast, safe, efficient, accessible, and convenient transportation system that meets vital National interests and enhances the quality of life, today and into the future.
USEPA	To protect human health and to safeguard the natural environment — air, water, and land — upon which life depends.
USFS	To sustain the health, diversity, and productivity of the Nation's forests and grasslands to meet the needs of present and future generations.
Tribal	
Washoe Tribe	To preserve the Lake Tahoe region and work toward secure access to native property and sites around the Tahoe lakeshore.
Regional	
Lahontan RWQCB	To preserve, enhance, and restore the quality of California's water resources, and ensure their proper allocation and efficient use for the benefit of present and future generations.
TRPA	To oversee land use planning and manage or regulate the associated environmental effects; maintain environmental standards, issue permits, enforce regulations, oversee attaining Federal water and air quality standards; and ensure attainment of environmental thresholds.
State	
CTC	To develop and implement programs through acquisitions and site improvements to improve Lake Tahoe water quality; preserve the scenic beauty and recreational opportunities of the region; provide public access; preserve wildlife habitat areas; and manage and restore lands to protect the natural environment.
Nevada Division of State Lands	To implement Nevada's share of the EIP; coordinate and implement a wide range of projects designed to improve water quality, control erosion, and restore natural watercourses; improve forest health and wildlife habitat; and provide recreational opportunities.
Non-Government/Non-Profit Organization	
Coalition	To focus on issues related to Tahoe Basin transportation and water quality.
The League	To build public support, bring science and politics together, build consensus among the varied interest groups around protecting and restoring Lake Tahoe, and act as the advocate for sensible development in the Tahoe Basin.
NLTRA	To promote, enhance, reinvigorate, coordinate, and direct tourism for the economic betterment of the North Lake Tahoe Region.

2.3 Historical Legislation and Activities

Figure 4 provides a timeline of key legislation and activities aimed at protecting the Tahoe Basin during the past 30 years. The timeline provides a visual representation and validates the historical effort extended to improve the environmental quality of the Tahoe Basin. Further, this timeline places today's efforts, in particular the SNPLMA Amendment, in context with past accomplishments. The SNPLMA Amendment represents the next significant step towards environmental quality improvement. Appendix C provides more specific information pertaining to these historical legislation and activities.

Figure 4. Pertinent Tahoe Basin Legislative Actions

Legislative Act and Activities



Result

-  Congress passes the 1969 Tahoe Regional Planning Compact creating the Tahoe Regional Planning Agency.
-  Federal Water Pollution Control Act directs USEPA to study adequacy of, and need for, extending Federal oversight to preserve fragile ecology of Lake Tahoe.
-  Western Federal Regional Council prepares the Lake Tahoe Environmental Assessment, establishing key aspects of the existing management framework of the Tahoe Basin.
-  The 1969 Tahoe Regional Planning Compact is amended and signed into law, changes composition of the Lake Tahoe Regional Planning Agency governing board, mandates a regional plan, and adopts environmental thresholds.
-  Directs a portion of funds from Federal land sales in southern Nevada to be used to purchase sensitive land in the Tahoe Basin.
-  Creates the Tahoe Federal Coordinating Council to ensure that Federal agency actions protect Tahoe Basin resources.
-  Revokes Executive Order 12247 and terminates the Tahoe Federal Coordinating Council.
-  Declares land be held in trust for the Washoe Tribe.
-  President convenes environmental summit at Lake Tahoe focusing on water quality, forest restoration, restoration, recreation, tourism, and transportation.
-  Creates the Tahoe Federal Interagency Partnership to ensure Federal agency actions protect the extraordinary resources of the Tahoe Basin.
-  Secretary of Agriculture charts 20-member Lake Tahoe Basin Federal Advisory Committee to represent regional, state, local, and natural interests.
-  Provides for disposal of public land in the vicinity of Las Vegas Valley and creates a special account for revenue generated.
-  Directs USFS to prepare a priority projects list in cooperation with stakeholders, increases USFS granting capability, and authorizes Federal expenditures of up to \$300 million to fund 10-year, \$908 million Environmental Improvement Program at Lake Tahoe.
-  Directs Secretary of Agriculture to convey 24 acres within Tahoe Basin to the Secretary of Interior to be held in trust for the Washoe Tribe.
-  Amends the Southern Nevada Public Land Management Act to provide dedicated funding for Federal Environmental Improvement Program project implementation.
-  Defines Tahoe Basin-specific Nomination and Selection Process for P.L. 108-108 funded projects.

3.0 BASELINE CONDITIONS – ELEMENT II

During the course of preparing the Framework Study, new legislation was drafted and became public law: the SNPLMA was amended and included in the U.S. Department of Interior Appropriations Act (P.L. 108-108). The amendment provides approximately \$37.5 million per year up to a total allocation of \$300 million for EIP project planning and implementation. The SNPLMA Amendment is included in Appendix B.

As a result of this development, the study team recognized the importance of incorporating the SNPLMA Amendment into the Framework Study, specifically the implementation agreement. An implementation agreement is a requirement of SNPLMA that defines the manner in which SNPLMA will be carried out and funds distributed in the Tahoe Basin. SNPLMA requires that the implementation agreement be in place prior to distribution of funds. For the Tahoe Basin, the implementation agreement is fulfilled by the stakeholder team-developed (assisted by the Study Team) nomination and selection process (see Appendix D). Products developed by the study team were beneficial in the stakeholder team's efforts to develop the nomination and selection process. SNPLMA, as it pertains to the Tahoe Basin, is described below.

3.1 Southern Nevada Public Land Management Act (SNPLMA)

SNPLMA was first introduced in 1998 (P.L. 105-263) and allowed the Secretary of the Interior to dispose of public land, via sale or transfer, in a specified area near Las Vegas, Nevada. One component of the authorization allows a portion of the funds generated from these sales to be used to acquire environmentally sensitive land in Nevada. Local governments and the U.S. Forest Service (USFS) took advantage of these funds to purchase property in Nevada.

3.2 SNPLMA Amendments

SNPLMA was first amended in 2002 (P.L. 107-282) to clarify that the Secretary of Agriculture had jurisdiction for land sales/transfers/purchases of national forest system land and the Secretary of the Interior had jurisdiction for other land. This amendment was important for the Tahoe Basin because the primary landowner and purchaser in the Tahoe Basin is the USFS. The USFS is under the jurisdiction of the Secretary of Agriculture.

The most recent SNPLMA Amendment (P.L. 108-108) is significant for the Tahoe Basin. The recent amendment, included in the Department of Interior Appropriations Act of 2003, allows up to \$37.5 million per year until \$300 million has been allocated to be used for restoration projects in the Tahoe Basin. The amendment provides for a portion of these funds to be used for capital costs authorized by the Lake Tahoe Restoration Act, Federal projects in the EIP, and erosion control grants to local governments.

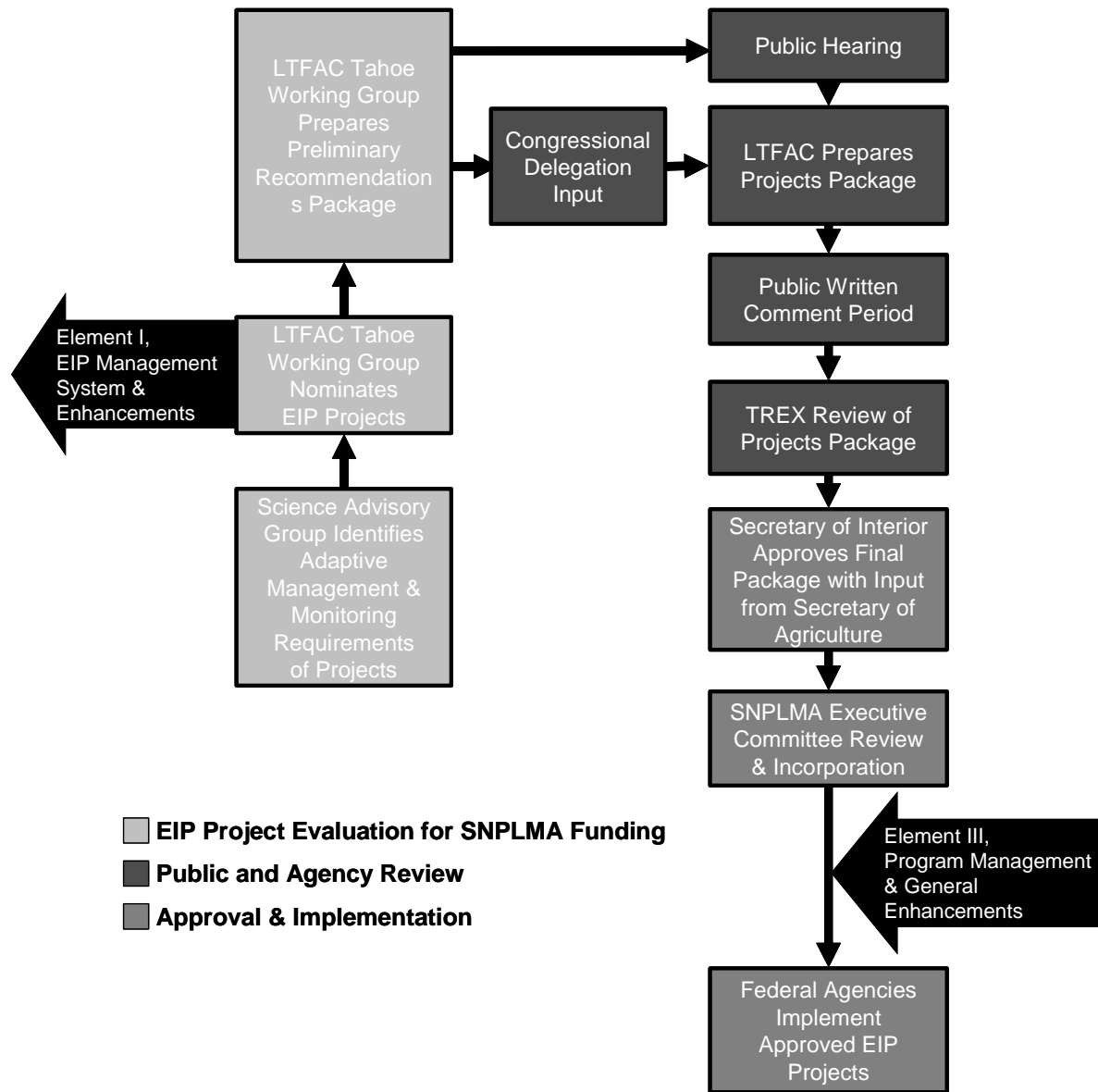
The amendment (P.L. 108-108) requires that these funds be spent in accordance with an amendment to the "implementation agreement" as defined in the 1998 act (P.L. 105-263). The one requirement specified in the amendment (P.L. 108-108) is that the modified implementation agreement must ensure that appropriate interested entities from Nevada and California are able to participate in the process to recommend projects for funding.

3.3 SNPLMA Amendment Implementation Agreement - EIP Project Nomination and Selection Process

Realizing how integral implementation of the SNPLMA Amendment would be to successful EIP project completion, the Corps engaged in the development of the implementation agreement; specifically, development of the SNPLMA nomination and selection process for EIP projects with a Federal responsibility. The process of conducting the Framework Study had already provided the momentum for stakeholders to work together toward a common end. The collaborative working environment established during the Framework Study was adopted and used by the stakeholder team with assistance from the study team to develop the project nomination and selection process for the SNPLMA Amendment.

The Coalition and the study team—through multiple meetings—supported by the stakeholder team, the congressional delegation, and the primarily affected local stakeholders (Nevada Division of State Lands, California Tahoe Conservancy (CTC), LTFAC, TRPA, USFS, USEPA, Corps, and the Desert Research Institute) worked to ensure a satisfactory locally developed process. A flowchart that summarizes the SNPLMA EIP Project Nomination and Selection Process is provided in Figure 5. The full text of this process as developed by the stakeholder team is included in Appendix D. The SNPLMA Executive Committee accepted the draft Tahoe-specific nomination and selection process in February 2004.

Figure 5. SNPLMA EIP Project Nomination & Selection Process



4.0 STUDY PROCESS

Congressional authorization of the Framework Study created an opportunity for Federal agencies acting in the Tahoe Basin and public and private interested entities to propose legislative changes to improve the efficiency and effectiveness of EIP implementation. The Framework Study provided the means to examine the Federal agency processes and systems currently in place and to propose enhancements to promote efficiencies and effectiveness, as appropriate. The Framework Study also provided a forum for Federal agency staff within the Tahoe Basin to suggest enhancements that could directly affect their capabilities to participate in EIP implementation. Stakeholders were also able to provide input regarding Federal agency activities in the Tahoe Basin. The Framework Study allowed stakeholders to:

- Use their experience and lessons learned to identify and provide opportunities to increase efficiency in implementing EIP projects in the Tahoe Basin.
- Participate with other stakeholders in discussions concerning implementation of EIP projects and opportunities to leverage resources.
- Take advantage of current congressional interest and the need for information to guide future Federal assistance for the Tahoe Basin.
- Use the mechanisms and processes developed for the Framework Study as a template for SNPLMA EIP project nomination and selection process development.
- Begin discussions regarding Federal agency EIP management among Federal agencies and stakeholders to develop concepts for improvement.

This section details the process and outcomes of work completed by stakeholders in their effort to consider opportunities and enhancements to the EIP processes. Figure 6 provides a graphical representation of the study process.

4.1 Identification of Opportunities and Objectives

In order to define the needs of the Tahoe Basin stakeholders as they relate to EIP implementation, the study team considered historical documentation (as noted in Section 2.0) and engaged Federal agency staff currently working in the Tahoe Basin as well as various local interested entities. Engaging Federal agency staff allowed a more comprehensive consideration of the opportunities.

To determine potential opportunities, the study team queried Federal agency staff and stakeholders regarding challenges or hurdles experienced when undertaking implementation of EIP projects. A comprehensive list of challenges was developed. Several of the challenges had been identified in earlier reports. Twenty-seven challenges were initially identified and redefined as "opportunity statements" for EIP implementation based on past experiences and stakeholders' perspectives. These opportunity statements reflect the vision of stakeholders for successful implementation of the EIP. The opportunity statements suggest concepts to improve efficiency and effectiveness of EIP implementation. The opportunity statements were categorized and then consolidated into five primary statements. These opportunity statements were then revised based on review comments from stakeholders. Appendix E provides a timeline of the Framework Study process. Table 4 below presents the five primary opportunity statements for EIP implementation as developed by stakeholders with assistance from the study team.

FIGURE 6. Framework Study Process

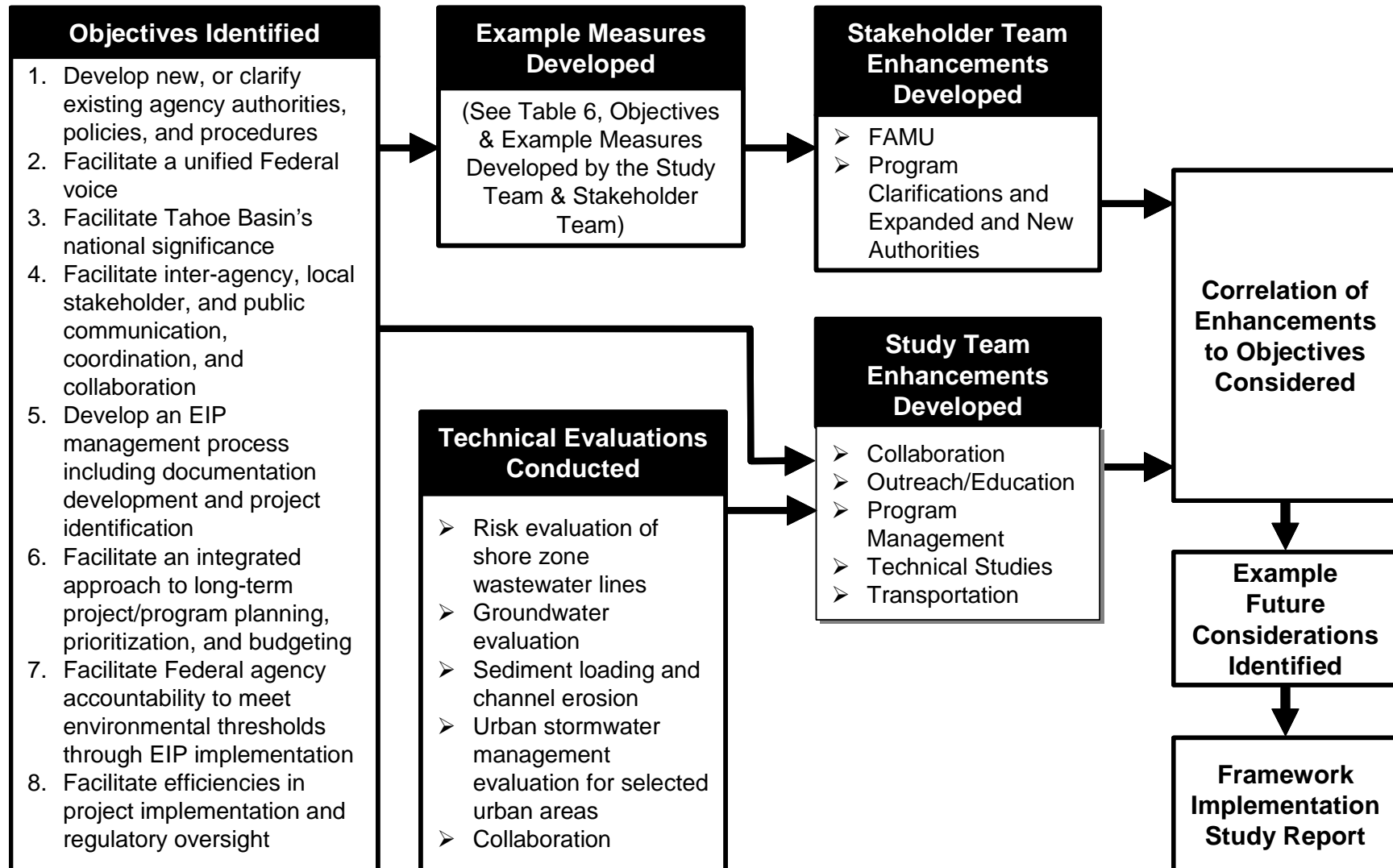


Table 4. EIP Implementation Opportunity Statements

Category	Opportunity Statements
Legislative Authority	Changes to, and clarification of, agencies' existing authorities, or new authorities, could create new avenues for completion of EIP projects. Authority changes and clarifications would provide agencies greater flexibility to manage the unique resources of the Tahoe Basin independent of national agency mandates and missions.
Communication/Coordination	Improvements to communication and coordination between and among involved agencies and stakeholders would develop efficiencies in process and generate greater trust, thereby encouraging more efficient implementation of EIP projects.
Funding	Modifications to, and increased understanding of, how funds are provided for Tahoe Basin activities could allow coordinated long-term planning and programming of the EIP. Opportunity also exists for Federal, state, or local legislative changes to ensure allocation of existing funds or additional funds for Tahoe Basin projects.
Agency Process/Policy	Changes to, and increased understanding of, existing agency processes and policies could create opportunities for partnering and cost sharing to improve the efficiency and effective implementation of EIP projects. Changes would not require legislative action, but rather internal agency action.
Regulatory/Permitting	Modifications to, and increased understanding of, regulatory and permitting processes could create increased efficiency and effectiveness in EIP project implementation. Opportunities exist to develop streamlined processes that consider the special nature of the Tahoe Basin resource and political environment.

Using these five primary opportunity statements, the study team, in cooperation with stakeholders, developed objectives that, if met, would capitalize on the opportunity to improve effectiveness and efficiency of the EIP implementation process. Initially, 20 objectives were identified. Based on feedback from agency staff and stakeholders, the study team consolidated the 20 objectives into the 8 presented in Table 5. Those objectives included in Table 5 were similarly identified in the 1974 USEPA Lake Tahoe Study.

Table 5. Objectives for Improving the EIP Implementation Process

Objectives
1. Develop new, or clarify or expand existing agency authorities, policies, and procedures to allow for greater efficient and effective EIP implementation.
2. Facilitate a unified Federal voice.
3. Facilitate Tahoe Basin's national significance.
4. Facilitate inter-agency, local stakeholder, and public communication, coordination, and collaboration.
5. Develop an EIP management process including documentation development and project identification.
6. Facilitate an integrated approach to long-term project/program planning, prioritization, and budgeting among Tahoe Basin EIP implementing agencies.
7. Facilitate Federal agency accountability to meet environmental thresholds through EIP implementation.
8. Facilitate efficiencies in project implementation and regulatory oversight.

4.2 Development of Measures

Following development of objectives, the study team and stakeholders developed specific measures to assist in achievement of each objective. The measures were developed as representative examples; that is, they were not intended to be a comprehensive listing or representative of a full range of possible measures. The study team and stakeholders intended that these measures, or others similar to them, if implemented, could lead to the potential attainment of the identified objectives—thereby capturing potential opportunities for increasing efficiency and effectiveness. The measures were revised based on continual feedback from stakeholders. Measures for which agreement did not exist were eliminated from consideration.

The example measures range from requiring significant legislative action to requiring cultural and structural changes within agencies to modifications of Tahoe Basin agency policies. Some measures would be more difficult to implement than others; the difficulty of implementing a measure does not necessarily directly relate to the benefit derived. For example, a measure that is considered easy to implement does not necessarily imply that its benefit is minimal, and conversely, a measure that may be difficult to implement does not necessarily imply that a large benefit would result.

Objectives and example measures developed by the study team and stakeholders are presented in Table 6.

4.3 Development of Enhancements

During the Framework Study, the stakeholder team realized that though a positive step for the Tahoe Basin, an infusion of Federal funding alone was not enough to achieve the stakeholders' vision as stated in the objectives for EIP project implementation (see section 4.1). There was a realization that enhancements to existing Federal processes and capabilities would be necessary to ensure the most effective use of not only SNPLMA funds, but also any other Federally appropriated funds. The stakeholder team was able to develop these enhancements with the awareness that the political environment, both locally and nationally, was primed for new concepts.

4.3.1 Three Elements of a Comprehensive Framework

As the Framework Study progressed and information was gathered from stakeholders, it became clear that a comprehensive framework consisting of three distinct elements was needed for successful EIP management and project implementation. These three elements are

- Element I - EIP Management and Agency Capability Enhancements, articulated as stakeholder team enhancements;
- Element II – Baseline Conditions, SNPLMA EIP Project Nomination and Selection Process; and
- Element III - Program Management and General Enhancements, articulated as study team enhancements.

Table 6. Objectives and Example Measures Developed by the Study Team and Stakeholders

OBJECTIVE 1: DEVELOP NEW OR CLARIFY OR EXPAND EXISTING AGENCY AUTHORITIES, POLICIES, AND PROCEDURES TO ALLOW FOR GREATER EFFICIENT AND EFFECTIVE EIP IMPLEMENTATION
U.S. Geologic Survey
Appropriation of funds to conduct research and monitoring in the Tahoe Basin.
Federal Highway Administration/Federal Transit Authority
Expanded eligibility criteria for highway/transit funds within the Tahoe Basin.
Ability to target highway/transit funds within the Tahoe Basin to specific programs or activities.
Ability to reserve portions of various highway/transit funds for the Tahoe Basin.
Ability to transfer highway/transit funds to agencies other than state Department of Transportation or transit recipients.
U.S. Army Corps of Engineers
Flexibility in cost-sharing agreement (local authority for changes) in application of the Truckee River and Tributaries, California and Nevada; Resolution by the Committee on Environment and Public Works of the United States Senate to the Tahoe Basin.
Funding, work-in-kind enhancements, and flexibility in cost-sharing agreement (local authority for changes) to the existing Lake Tahoe authority under the Watershed Management, Restoration, and Development; Section 211, WRDA 99 (amends Section 503, WRDA 96).
Funding, work-in-kind enhancements, and flexibility in cost-sharing agreement (local authority for changes) to the existing authority within the Environmental Infrastructure; Section 502, WRDA 99 (amends Section 219, WRDA 92).
Fenced funding for existing authority within rural Nevada; Section 595, WRDA 99.
Funding for existing authority within the Tribal Partnership Program; Section 203, WRDA 00.
U.S. Forest Service
Implement a “no-year budget” funding strategy.
U.S. Environmental Protection Agency
Develop grant guidance that allows Lake Tahoe specific projects to forego the competitive grant process and provide discretion to the Lake Tahoe region to give special consideration for funding.
Natural Resources Conservation Service
Develop Backyard Conservation Program improvements including additional funds to cost share with, or provide incentive payments to, private landowners.
Remove Lake Tahoe specific projects from National grants competition.
Allow Federal agency flexibility for special consideration of projects to be funded outside the competitive grant process; that is, enact an exemption for certain Federal agencies such as USEPA and NRCS.
Provide agency discretion and flexibility to fund and support Tahoe Basin priority programs and projects.
Delegate authority to enter into cost-sharing agreements to staff at regional or local level dependent on agency hierarchy.
Provide authority for cost sharing based on program goals to promote local, state, and Federal individual agency project implementation; that is, funds expended on individual agency projects could be used to meet cost-sharing requirements on other projects meeting similar program/watershed goals.

OBJECTIVE 2: FACILITATE A UNIFIED FEDERAL VOICE
Assign LTBEC the primary responsibility to plan, program, set priorities, and speak on environmental quality improvement for the Partnership to represent the Federal interest within an established protocol.
Assign a lead agency the responsibility and authority to plan, program, set priorities, and speak on environmental quality improvement with the Partnership to represent the Federal interest within agency authority.
Create a corporation with the responsibility and authority to plan, program, set priorities, fund programs and projects, and speak on environmental quality improvement in place of the Partnership interest.
OBJECTIVE 3: FACILITATE TAHOE BASIN'S NATIONAL SIGNIFICANCE
Develop various agency and/or non-agency national titles or special designations that would be meaningful to the Tahoe Basin; for example, critical watershed or national recreation area designation.
Create and fund a presidentially appointed board that reports to the Administration and Congress.
Develop LTFAC's role in reporting to Tahoe Basin constituency and Administration regarding progress at Lake Tahoe.
Use the LTFAC in a programmatic fashion to facilitate the Tahoe Basin image and gain high-level access for advocacy efforts; for example, access to policy makers.
Create a unique environment in the Tahoe Basin by implementing innovative concepts and outreach activities that draw attention to and spur action towards the Tahoe Basin by public, agencies, legislators, and other interested parties (for example, banning two-stroke engine use on Lake Tahoe and the use of electric cars at Echo Summit).
Develop a LTFAC succession plan that eases restrictions on participation; for example, eliminates term limits.
OBJECTIVE 4: FACILITATE INTERAGENCY, LOCAL STAKEHOLDER, AND PUBLIC COMMUNICATION, COORDINATION, AND COLLABORATION
Develop interactive process to track and communicate project implementation and success.
Develop multi-agency newsletter that is locally distributed, providing outreach and project coordination opportunities, highlighting successes, and emerging issues.
Develop interactive web page for EIP agency activities to convey coordinated efforts on similar projects and projects in the same watershed to interested public.
Develop "project matching software" that allows agencies working on similar projects to coordinate and consolidate program management efforts.
Hire a Tahoe Basin community liaison to assist with permitting outreach, monitoring data network, local stakeholder outreach, and congressional outreach.
Create a Federal representative (lead agency) that provides needed technical information to the public, Congress, and the Administration.
Share National program guidance among agencies as it relates to the Tahoe Basin.
Communicate permit processes to local stakeholders via newsletters.
Include local agency representatives on multi-agency review teams to provide input within an established formal collaboration process.
Develop process for local labor interests to track and extend employment opportunities associated with the EIP program and project implementation.

OBJECTIVE 5: DEVELOP AN EIP MANAGEMENT PROCESS INCLUDING DOCUMENTATION DEVELOPMENT AND PROJECT IDENTIFICATION
Integrate and coordinate Federal efforts to implement EIP projects with state, local, and private entities.
Involve Federal agencies in creating EIP project priorities (EIP document management).
Clarify individual Federal agency roles in EIP program/project implementation.
Facilitate EIP prioritization.
Redefine the Partnership program.
Align Federal transportation efforts with EIP projects.
Avoid orphan EIP projects.
OBJECTIVE 6: FACILITATE AN INTEGRATED APPROACH TO LONG-TERM PROJECT/PROGRAM PLANNING, PRIORITIZATION, AND BUDGETING AMONG TAHOE BASIN EIP IMPLEMENTING AGENCIES
Develop an integrated agency work plan and link to a cross-cut budget plan (single budget submission reflecting all Federal agencies in the Tahoe Basin rather than individual budget submissions by each agency) based on annual, 5-, and 10-year goals.
Elicit local stakeholder and public input and support for the planning and prioritization process.
Develop screening methodology for project and program prioritization to ensure consistent prioritization throughout the Basin.
Develop individual agency-specific short-, mid-, and long-term plans for each watershed and combine into a program management process.
Hire and fund dedicated program manager and staff to set priorities and address long-term budgeting and funding issues as well as manage the grant process and assist grant applicants.
Include all Federal agencies as participants in the Lake Tahoe Restoration Act and develop “agency specific” line items within the Act; for example (1) provide a line item for Corps projects, (2) create USEPA special program management process, (3) provide a specific line item for USGS projects, and (4) provide transportation project implementation and operation and maintenance funding.
Develop multi-year funding processes allowing carry-over of funds or “no-year” funding; that is, funding based on project completion requirements and not fiscal year funding.
Fund and develop the Science Advisory Group.

OBJECTIVE 7: FACILITATE FEDERAL AGENCY ACCOUNTABILITY TO MEET ENVIRONMENTAL THRESHOLDS THROUGH EIP IMPLEMENTATION
Implement standard agency-reporting (fiscal and project/program implementation success) requirements on a National level via Congress and the Administration detailing successes toward EIP implementation and threshold attainment.
Implement standard agency-reporting (fiscal and project/program implementation success) requirements at the regional level via LTFAC detailing successes toward EIP implementation and threshold attainment.
Implement an independent peer review or multi-agency review of programs and projects that expands fiscal accountability and grant oversight beyond each agency's internal review process and base future funding allocation on review results and successes toward EIP implementation and threshold attainment.
Amend EIP accounting and reporting guidelines to include funding for operations, maintenance, and monitoring and adaptive management.
Identify the need, responsible parties, and timelines for operations, maintenance, and monitoring in perpetuity to maintain or improve threshold attainment gains.
Establish a multi-agency review team that is responsible for budget and fiscal accountability and grant oversight ensuring EIP implementation and threshold attainment.
OBJECTIVE 8: FACILITATE EFFICIENCIES IN PROJECT IMPLEMENTATION AND REGULATORY OVERSIGHT
Evaluate other agencies streamlining efforts and make recommendations, as they relate to permitting and processes, for use in the Tahoe Basin; for example, Morro Bay Partnership Agreement and Elkhorn Slough Permitting Agreements.
Develop state/local regulatory "general permits" concept for specific types of project work within the Tahoe Basin.
Develop a Federal or state programmatic permit (Section 404, pier approval, or tree removal permit).
Develop a regulatory help desk with advisory responsibilities for all Tahoe Basin permits to promote efficient and effective program and project review and implementation.
Create a multi-agency, multi-disciplined review committee (decision body) that would provide early consultation for the regulatory process and be responsible for regulatory agency acceptance of permits within an established protocol.
Develop and implement a dispute resolution process (using existing Federal models) for regulatory issues for those agencies without a process currently.

Element II is the baseline condition as described in Section 3.0. The development of Elements I and III is discussed below. Figure 7 presents these three elements of a comprehensive framework of the Federal EIP Program as envisioned by the study team and identifies how the study team and stakeholders' Framework Study efforts relate to Elements I and III. Element I, the EIP Management System, provides valuable input into the baseline conditions (Element II). Element II ultimately relies on the successful implementation of Element III, Program Management and General Enhancements, for effective and efficient EIP project implementation.

4.3.2 Development of Stakeholder Team-Proposed Enhancements – Element I

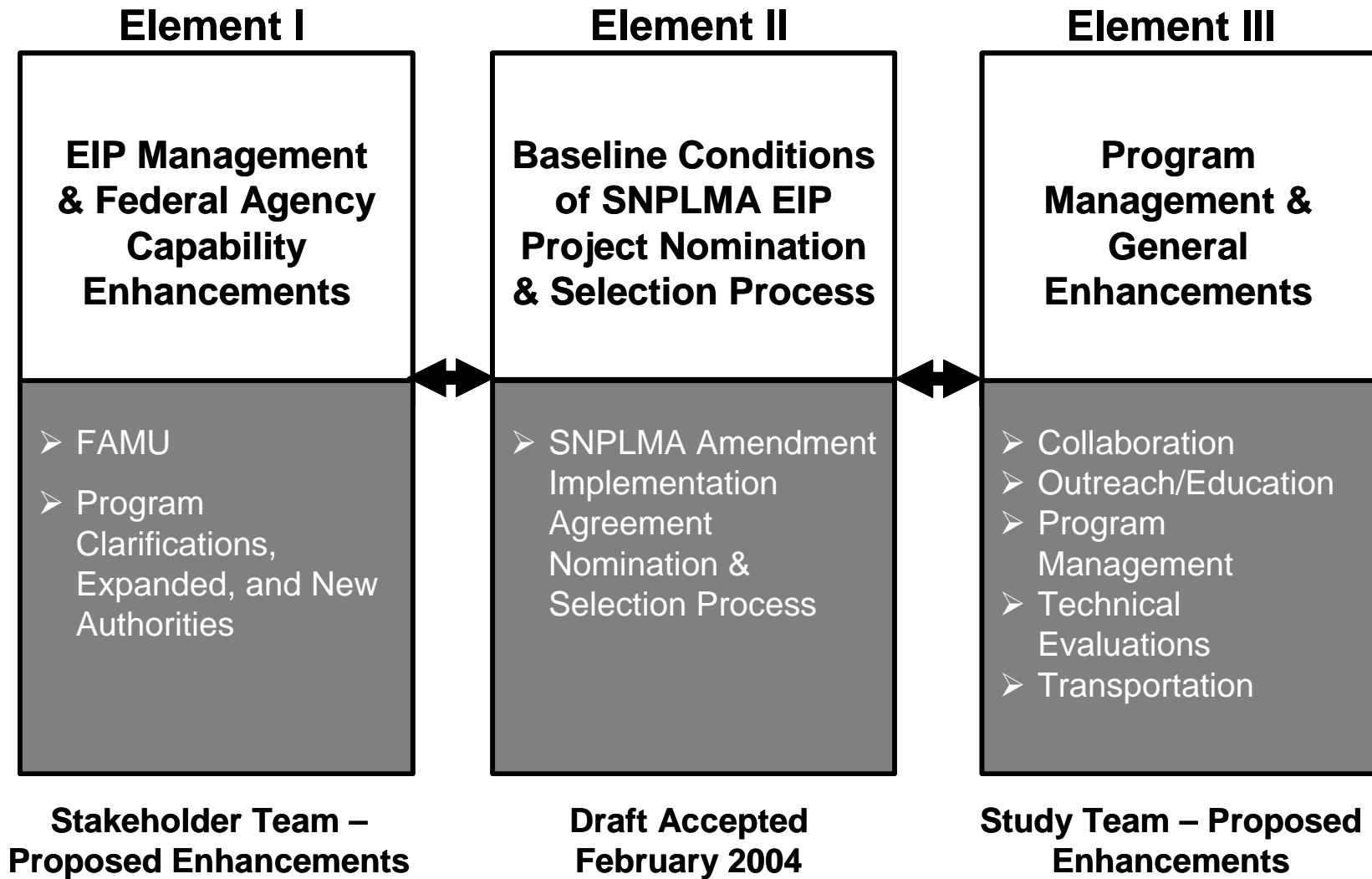
The stakeholder team recognized that with the infusion of Federal funding, improved Federal participation in EIP scheduling and prioritization would be necessary. A natural consequence of this improved Federal participation would be improved coordination and communication among Federal agencies and between Federal agencies and TRPA. Additionally, this improved participation would provide a stimulus to improve communication and coordination with state, local and regional entities.

Within the confines of existing Federal agency authorities, policies, and processes, efficient and effective use of SNPLMA funds for EIP implementation could be difficult. As a result, the stakeholder team, assisted by the study team, developed an enhancement focusing on clarifications for existing authorities and new and expanded authorities to facilitate more efficient and effective Federal agency implementation.

4.3.3 Baseline Conditions – SNPLMA EIP Project Nomination and Selection Process – Element II

As discussed in Section 3.0, during the course of preparing the Framework Study, new legislation was drafted and became public law: the SNPLMA was amended and included in the U.S. Department of Interior Appropriations Act (P.L. 108-108). The amendment provides up to approximately \$37.5 million per year up to a total allocation of \$300 million for EIP project planning and implementation. The SNPLMA Amendment and the administration of the SNPLMA nomination and selection process establishes the baseline conditions of the Framework Study, that is, Element II and is included in Appendix B. A flowchart that summarizes the SNPLMA EIP Project Nomination and Selection Process is provided in Figure 7. The full text of this process as developed by the stakeholder team is included in Appendix D. The SNPLMA Executive Committee accepted the draft Tahoe-specific Nomination and Selection Process in February 2004.

FIGURE 7. Elements of a Comprehensive Framework



4.3.4 Development of Study Team-Proposed Enhancements – Element III

In addition to the realizations of the stakeholder team, the study team recognized the need for and developed several other proposed enhancements. These study team enhancements focused on more long-term, broader concepts that build upon Elements I and II, such as formal collaboration, outreach/education, and program management. These enhancements were developed for the purposes of facilitating development of a structure that supports the most efficient and effective implementation policies. The study team also developed specific enhancements related to the four technical evaluations and transportation-related issues. The text below summarizes information considered for development of these study team-proposed enhancements. Section 6.0 presents the specific enhancements.

Formal Collaboration

A feasibility assessment report on formal collaboration was conducted to evaluate whether stakeholders in the Tahoe Basin could make constructive use of a formal collaborative process in setting public policy. The assessment clarifies issues, conditions, trends, goals, and stakeholder views as well as an appropriate design of a formal collaborative process. The feasibility assessment report was based on input received from the participating agencies including detailed interviews with nearly 50 major decision makers.

Pathway 2007, a combined effort to integrate the regional planning efforts of the USFS, TRPA, Lahontan Regional Water Quality Control Board (RWQCB), and the Nevada Division of Environmental Protection (NDEP) was considered the ideal selection for the collaboration feasibility assessment. Pathway 2007 represents the most complete spectrum of Tahoe Basin issues. This coordinated regional planning effort is scheduled for completion in 2007 and will have a fundamental effect on virtually all activity within the Tahoe Basin for the next 20 years. The planning efforts include:

- USFS Land and Resource Management Plan Revision
- TRPA Regional Plan Update
- Lahontan RWQCB and NDEP Lake Tahoe Total Maximum Daily Load Process Study

The feasibility assessment report concluded that current conditions are not favorable to immediately initiate a formal collaborative process. Current conditions and historical precedents do not presently predict favorable results from a formal collaborative process in the Tahoe Basin unless stakeholders make fundamental cultural and process changes to: (1) be self-reflective enough to acknowledge their collaborative limitations, (2) grow beyond these limitations, and (3) provide the fiscal and temporal resources to change these limitations.

Despite the conclusion of the feasibility assessment report, representatives from influential Tahoe Basin agencies believe that the future lies within a formal collaborative process that involves agencies and the public. These representatives have acknowledged the fundamental cultural and process changes required to shift current conditions to conditions that support initiation of a formal collaborative process.

Outreach/Education

Several stakeholders in the Tahoe Basin suggested a programmatic or coordinated approach to community education and outreach as a means to facilitate EIP implementation. Proponents of this concept included a subcommittee of the Basin Executives and members of LTFAC. Additionally, this need was recognized by the Program Management and Coordination Plan Report prepared by a joint venture of CH₂M-Hill and Parsons for TRPA, USFS, CTC, and the Corps. The Lake Tahoe Environmental Education Coalition (LTEEC) has been the strongest proponent to date.

Program Management

Program management as defined in The Handbook of Project Based Management is "...management of a group of projects in a coordinated way to obtain benefits not available from managing them individually". (Turner 1992) While there is broad philosophical support for program management in the Tahoe Basin, there is not currently general support indicated for any specific plan or scope defining program management. There is, however, general agreement that the development of any program management proposal for the EIP must recognize that the proposed program management would not duplicate the role of the project managers. Project manager duties typically involve matters of scope, schedule, budget, and project coordination.

In evaluating past attempts to consider program implementation in the Tahoe Basin, as well as evaluation of program management as it might apply to the SNPLMA Amendment, it becomes evident that before trying to build a program management structure that affects multiple agencies, one must very clearly describe a detailed definition of what program management involves and what role is proposed for the program management organization. It must be determined if program management includes management and control, tracking what others do, or merely ad hoc sharing of information of common interest. Additionally, a quantification of the benefit-to-cost ratio of program management must be determined. Agency participation will be predicated on these determinations. The success of future Tahoe Basin program management rests on this.

4.3.5 Technical Evaluations

The conclusions of the technical evaluations conducted by the Corps are provided below.

Risk Evaluation and Corrective Action Plan for Shore Zone Wastewater Lines

The purpose of the risk evaluation for shore zone wastewater lines was to determine the potential effect the wastewater facilities within the Tahoe Basin, especially in the shore zone, have on the nutrient load of Lake Tahoe. The evaluation provides a quantified estimate of exfiltration (leakage) from wastewater collection systems within the Tahoe Basin, and a qualitative assessment of risk from overflows/releases from the wastewater collection system in the shore zone and sensitive stream environmental zones (SEZ's) on the lake.

The evaluation applied best engineering judgment to existing data and assumptions. The evaluation concluded that about 0.42 percent and 1.0 percent of the total annual nutrient budget for nitrogen and phosphorus, respectively, for the lake was contributed from expected exfiltration during normal operations. The magnitude of this contribution will be utilized in helping to set the relative priority on infrastructure replacement and rehabilitation. The evaluation also performed

a risk assessment of overflows/releases from the wastewater collection system. Critical sewer facilities were identified and categorized based on the potential magnitude of the effects to Lake Tahoe should an overflow/release occur. Qualitative risk levels were established for the critical sewer facilities along with priority levels for the high and medium risk facilities. Draft risk reduction action plans were also developed.

The risk assessment concluded that while minor spills continue to occur, catastrophic spills have not been reported in years. This enviable record is probably due to a heightened level of preventative maintenance, which is at least partly due to the strict regulatory environment. However, wastewater systems are aging to the point where wastewater districts will be faced with increasingly costly preventative maintenance or initiation of a comprehensive capital replacement/rehabilitation plan. The sub-study recommends that any major capital replacement/rehabilitation plan be initiated soon and be spread over 15 to 20 years such that it can be accomplished in a manner so as to avoid a huge short term capital expenditure and associated calamitous effect on community quality of life.

Groundwater Evaluation

The purpose of the groundwater evaluation was to enhance the understanding groundwater plays in the eutrophication processes that reduce the clarity of Lake Tahoe. The groundwater evaluation estimated the phosphorus and nitrogen nutrient loading from groundwater flowing into Lake Tahoe. The evaluation also identifies known and potential sources of phosphorus and nitrogen and nutrient reduction alternatives. The groundwater evaluation identified those areas that have the greatest estimated groundwater nutrient contribution in the Tahoe Basin.

The information in the groundwater evaluation was based on best engineering and geological judgment, interpretation, and modeling using existing data, reports, interviews, and scientific principles. The estimate of nutrient loading was separated into five regions based on political boundaries and major aquifer limits. The total estimate indicates that groundwater is a significant contributor of nutrients. The overall nitrogen and phosphorus loading contributed by groundwater is estimated to be 13 percent and 15 percent of the total annual budget for the lake, respectively for nitrogen and phosphorus. This estimate also indicates that the areas most deserving of additional investigation, characterization, and mitigation are the Tahoe Vista/Kings Beach and Tahoe City/West Shore regions. The key sources evaluated for nitrogen and phosphorus included fertilized areas, sewage, infiltration basins, and urban infiltration.

The groundwater evaluation concluded that since groundwater is an important contributor of nutrients to Lake Tahoe; more information on the subsurface geology and the natural levels of groundwater nitrogen and phosphorus in the Tahoe Basin is needed. The evaluation also concluded that phosphorus plumes generated from many sources in the Tahoe Basin might be a continuing problem for years to come despite immediate efforts to limit introduction of any new phosphorus.

Sediment Loadings and Channel Erosion Evaluation

The purpose of the sediment loadings and channel erosion evaluation was to combine detailed modeling of several representative watersheds with reconnaissance level evaluation of numerous sample sites to determine which basins and areas were contributing sediment to Lake Tahoe. Additionally, numerical modeling of upland and channel erosion processes for the next 50 years was conducted on three representative watersheds.

The evaluation included analysis of land use, land cover, soil erodibility, steepness, geology, and historical stream cross-sections. Historical flow and sediment-transport data from more than 30 sites were used to determine bulk suspended-sediment loads and yields for sites around the lake. Fine-grained sediment transport was determined from historical data based on relations derived from particle-size distributions across the range of measured flows.

The evaluation concluded that stream erosion contributes a significant level of fine sediment and nutrients to the lake. When comparing those watersheds with little human disturbance with those watersheds that have experienced human disturbance, a very significant increase in erosion and sediment yield is evident from the disturbed watersheds. The evaluation also concluded that the storm event of 1997 acted to flush out many streams in the Tahoe Basin resulting in lower sediment yields in successive years following the event. Several streams such as the Upper Truckee River, Blackwood Creek, and Third Creek, continue to yield significant sediment. The evaluation looked in greater detail at the Upper Truckee River and concluded that the controlling stream bank erosion in reaches adjacent to the golf course and downstream from the airport could significantly reduce sediment delivery to the lake.

Urban Stormwater Master Planning Evaluation

Stormwater and other surface water runoff have been shown to be a significant contributor of pollutants and to the loss of clarity in Lake Tahoe. The stormwater management evaluation assessed the current status of urban stormwater master planning in the Tahoe Basin, comparing it to state-of-the-art planning within the industry, and evaluating site-specific best management practices issues.

The evaluation concluded that while numerous activities relating to urban stormwater management are underway in the Tahoe Basin, a comprehensive master planning strategy does not presently exist. Master planning might prevent redundancies in the Tahoe Basin and identify consistent strategies to implement regional best management practices.

4.3.6 Transportation Concerns

Transportation affects virtually all threshold programs and is an extremely significant feature in the Tahoe Basin economic health. Transportation efforts in the Tahoe Basin involve a large number of agencies, boards, coalitions, divisions and organizations dedicated solely to the successful implementation of a comprehensive transportation plan. Yet, difficulty in project implementation due to lack of funding and a project champion is reality. The significance of transportation in the Tahoe Basin and the uncertainty faced in implementation of transportation projects as well as stakeholder interest prompted the study team to review transportation issues further.

Consideration of transportation issues by the study team was limited to an understanding of the issues and enhancements that could be addressed within the scope of the Framework Study—that is, as part of the effort to determine the primary needs of Federal agencies and stakeholders with regard to implementation of the EIP. Three significant issues were identified through meetings with members of LTFAC, USFS, TRPA, USEPA, California Department of Transportation (CalTrans), North Lake Tahoe Resort Association (NLTRA), and others. These issues were: (1) pass-through of Federal funds to state entities, (2) Federal criteria to receive

metropolitan planning organization funding; and (3) lack of transportation-specific components in the EIP and ETCC's.

The U.S. Department of Transportation (USDOT), Federal Transit Authority (FTA) and Federal Highway Administration (FHWA) currently provide pass-through Federal funding to the States of California and Nevada. Pass-through funding does not address EIP transportation associated projects. As a result, a disconnect between Federal responsibility and EIP implementation is created.

The Federal and state criteria used to qualify for transit and transportation funds are based on resident population. During peak visitor periods, the population increases three-fold straining the transportation and transit infrastructure and causing affects to water quality, air quality, recreation, noise, etc.

The ETCC's and the EIP do not include specific transportation components. As a result, these transportation projects are not competitive with other EIP projects based on the stated program threshold attainment. Projects currently defined as 'transportation projects' and not labeled under their proper threshold, often are not competitive with other EIP projects based on the stated program threshold attainment. Projects currently defined as 'transportation' should be cross-referenced and redefined in accordance with the ETCC benefits and attainment status.

5.0 STAKEHOLDER TEAM-PROPOSED ENHANCEMENTS – ELEMENT I

Capitalizing on a collaborative effort and capturing the momentum from the SNPLMA efforts have allowed the stakeholder team to develop enhancements to implement far-reaching changes in the way the EIP is managed.

The stakeholder team, with study team assistance, developed two types of enhancements (management- and Federal agency capability-related enhancements) to ensure more effective implementation and management of EIP projects using SNPLMA funds. These enhancements are described below, and as appropriate, include requirements for successful implementation. As noted previously, the enhancements are developed to varying degrees of breadth and complexity. Section 6.0 presents the enhancements proposed by the Study Team, Element III.

5.1 Management Related Enhancements - Federal Agency EIP Management Unit (FAMU)

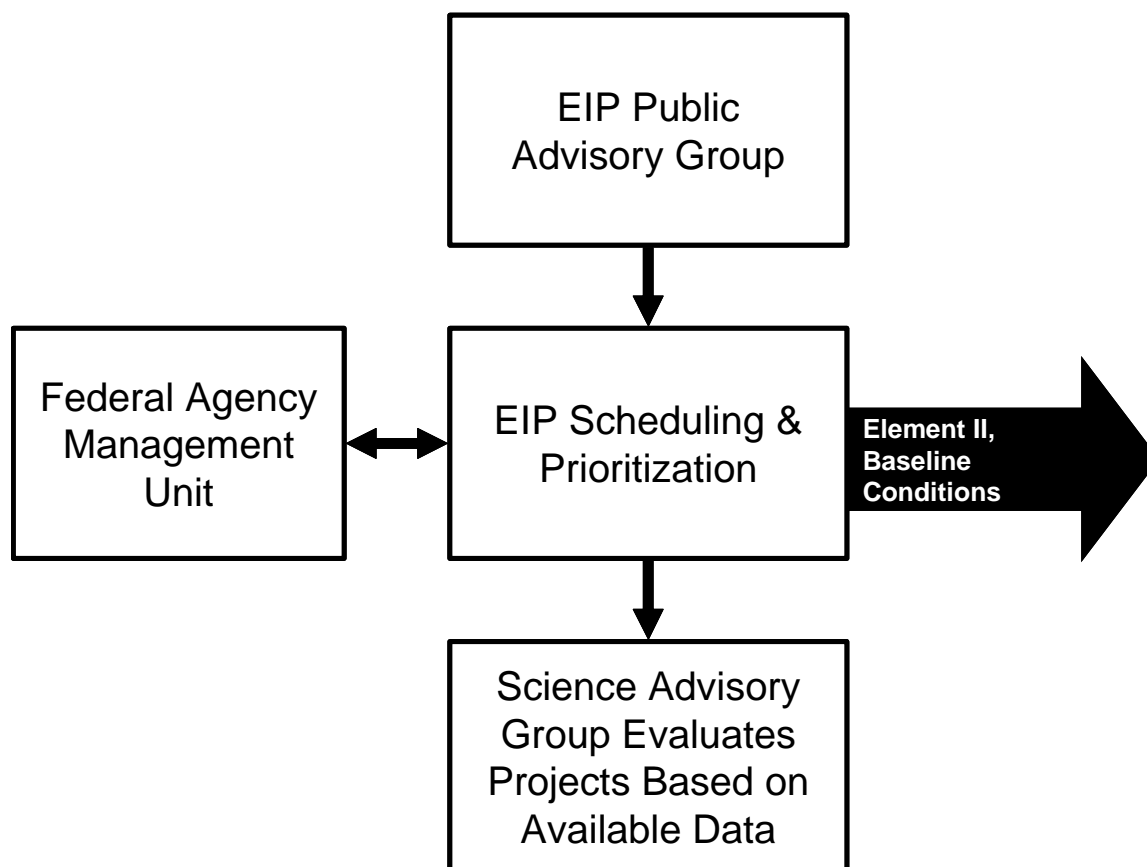
Presently, there is no formal organization or mechanism to ensure that all Federal EIP projects are integrated and coordinated in a programmatic manner that provides the most cost-effective use of the available funds. Divergent approaches among the no fewer than eight Federal agencies with EIP responsibilities are primarily a function of rules and management styles that limit the ability of Federal agencies to relinquish their EIP responsibilities, while maintaining accountability to their agency mission, mandate and authority. Therefore, a management mechanism is required that coordinates the activities of all Federal agencies responsible for EIP implementation while respecting their need to be accountable to their respective departments.

It is essential that a management unit be established that meets the objectives and basic implementing measures that key Federal agencies agreed to as part of the Framework Study (see Appendix D). Development of the FAMU and other associated components is necessary to implement the Federal EIP Management System. This management system is designed to organize, prioritize, and schedule all Federal agencies' EIP projects based on a variety of factors including agency capacities and authorities, as well as potential opportunities to consolidate similar projects. One of the principal goals of the FAMU is to ensure that projects nominated in the SNPLMA process for the Tahoe Basin have been thoroughly analyzed and prioritized prior to consideration. The FAMU would be operated as a partnership among TRPA and Federal agencies wishing to participate in implementing EIP projects. The relation of the FAMU to the EIP management system is presented in Figure 8.

5.1.1 Correlating Objectives

The FAMU has the potential to at a minimum partially address all eight objectives identified in Section 4.0. This capacity to address the objectives is dependent upon the actual FAMU implementation strategy.

FIGURE 8. EIP Management System



5.2 Federal Agency Capability Enhancements

Program clarifications and expanded and new authorities were developed for the Corps, the USDOT, USEPA, U.S. Bureau of Reclamation (Reclamation), and USFS. Program clarification and authority modification are limited to those areas, specific to the Tahoe Basin, which could provide a benefit to EIP implementation. These 17 clarifications and authorities are presented in alphabetical order by agency in Table 7. The table also provides a listing of the objectives at least partially met by each clarification or expanded or new authority.

Table 7. Program Clarifications and Expanded and New Authorities

Authority or Program	Proposed Enhancement	Specific Objective Addressed as Developed by the Stakeholder Team	Relevant Objectives as presented in section 4.1
Corps			
Truckee River and Tributaries, California and Nevada; Resolution by the Committee on Environment and Public Works of the United States Senate to the Tahoe Basin	Provide authority for the Corps' Sacramento District to enter into non-standard cost-sharing agreements.	Currently, Corps must gain approval on non-standard cost-sharing agreements from Washington, DC, headquarters offices. Standard cost-sharing agreements are often not compatible with Tahoe-specific needs, and as a result, non-Federal sponsors are reluctant to partner with the Corps.	Objectives 1, 7, and 8
Watershed Management, Restoration, and Development; Section 211, WRDA 99, (amends Section 503, WRDA 96)	Provide funding, work-in-kind enhancements, and flexibility in cost-sharing agreements within this existing authority.	Currently, the Corps receives appropriations on a project-by-project basis, has stringent work-in-kind requirements, and incompatible cost-sharing agreements for Tahoe-specific non-Federal sponsor needs. As a result, non-Federal sponsors are often hesitant to partner.	Objectives 1, 7, and 8
Environmental Infrastructure; Section 502, WRDA 99 (amends Section 219, WRDA 92)	Provide funding, work-in-kind enhancements, and flexibility in cost-sharing agreements within the existing Environmental Infrastructure authority focusing on EIP Implementation.	Currently, the Corps receives appropriations on a project-by-project basis, has stringent work-in-kind requirements, and incompatible cost-sharing agreements for Tahoe-specific non-Federal sponsor needs. As a result, non-Federal sponsors are often hesitant to partner.	Objectives 1, 7, and 8
Section 595 of WRDA 1999	Provide fenced funding within this existing authority focusing on EIP Implementation.	Competition for funding is based on projects being considered state-wide, making it difficult for the Corps to commit to project participation.	Objectives 1, 7, and 8
Section 203 of WRDA 2000	Provide funding under this existing authority focusing on EIP Implementation.	Lack of funding for this authority does not allow the Corps to partner with the Washoe Tribe to implement EIP projects.	Objectives 1, 7, and 8
SNPLMA Amendment (P.L. 108-108)	Authorize the Secretary of the Army to use SNPLMA funds for executing the Federal share of restoration projects in the Tahoe Basin in the form of grants, reimbursements including reasonable costs of project initiation, or through local cooperation agreements with non-Federal partners.	SNPLMA does not refer to, nor provide, any specific guidance on how the Corps executes work at Lake Tahoe using SNPLMA funds. Using the Economy Act (31 U.S.C. 1535) as a basic authority, the Corps would then be limited to performing SNPLMA work with Corps staff or by contract, but could not use grants, reimbursements, or interagency agreements.	Objectives 1, 7, and 8

Authority or Program	Proposed Enhancement	Specific Objective Addressed as Developed by the Stakeholder Team	Relevant Objectives as presented in section 4.1
USEPA			
Section 106 Grant Program Funding for Interstate Compact Commissions	Direct the USEPA to allow TRPA to participate in the Clean Water Act Section 106 Grant Program, Funding for Interstate Compact Commission contingent upon meeting program criteria.	The deadline for agency participation in Section 106 of the Clean Water Act lapsed before TRPA could enter the program.	Objectives 1, 7, and 8
National Grants Program	Provide guidance to the USEPA that the implementation agreement for EIP projects in the Tahoe Basin be exempt from usual project competition requirements, much like the Chesapeake Bay grant program; or that the process agreed to by BLM and all of the Federal agencies involved in implementing Tahoe SNPLMA projects satisfies any applicable competition requirements.	Because of the USEPA competition requirement for grant funding, participation in SNPLMA may be rendered unlawful and infeasible.	Objectives 1, 7, and 8
Reclamation			
Fish and Wildlife Coordination Act of 1934	Provide a statutory definition to the Lake Tahoe Regional Wetland Development Program (Fish and Wildlife Coordination Act of 1934) that clarifies how funds may be used for program needs in the Tahoe Basin. These needs include design and implementation of projects to benefit fish, water quality, wildlife, riparian areas, vegetation, and lake habitats. In addition, a critical need identified in the Corps Lake Tahoe Framework Study is coordination of projects by different Federal agencies to ensure cost effectiveness and efficiency between projects. The coordination of the projects into a cohesive, cross agency framework would assist in timely implementation of projects funded from both the SNPLMA and future congressional appropriations.	Currently, the Lake Tahoe Regional Wetlands Development Program does not have a statutory definition, which leaves the Reclamation without clear congressional guidance as to how the funds under this program may be expended.	Objectives 1, 7, and 8

Authority or Program	Proposed Enhancement	Specific Objective Addressed as Developed by the Stakeholder Team	Relevant Objectives as presented in section 4.1
USDOT			
SNPLMA Amendment (P.L. 108-108)	Clarify the authority of USDOT to set aside 1 percent of Public Lands Highway funds to conduct project-specific activities, including project planning, environmental studies, preliminary design, and construction. (Included in pending House and Senate transportation reauthorization bills (HR 3550 and S 1072.)	The Transportation Equity Act of the Twenty-First Century provided that in addition to the typical metropolitan planning organization funds made available to the TMPO, that “not more than 1 percent of the funds allocated under Section 202 (Federal Lands Highway Program) may be used to carry out the transportation planning process for the Lake Tahoe region”. Public law 96-551 authorizes TRPA’s adopted ETCC’s, and its EIP that supports the threshold standards, which further describes the financial responsibilities of the Federal government, California, and Nevada, as well as local public and private partners.	Objectives 1, 7, and 8
TMPO	Allow TMPO to expend 1 percent of allocated funding on operation and maintenance costs associated with transit projects.	Currently, no entity is responsible for O&M of transit projects.	1, 6, 7, and 8
USFS			
Inter-governmental Personnel Agreements and Transfer Capabilities	Direct the USFS to establish staff for transit programs, perhaps in the form of a detailee from the National Park Service via Intergovernmental Personnel Agreements and Transfer Capabilities, and allow for SNPLMA and other funding sources to be used for operation and maintenance.	LTBMU lacks expertise and operating funding to provide an effective transit system.	Objectives 1, 7, and 8
Special Area Designation	Designate the Tahoe Basin as the “Lake Tahoe National Scenic Recreation Area” in lieu of the “Lake Tahoe Basin Management Unit”.	LTBMU current designation does not lend itself to the type of stature and visibility necessary to ensure Tahoe of a reliable source of funding.	Objectives 1 and 3
SNPLMA Amendment (P.L. 108-108)	Provide authority under the SNPLMA to use these funds for SNPLMA administration.	The administration of the Tahoe SNPLMA program is the responsibility of the USFS. However, SNPLMA does not explicitly authorize the use of SNPLMA funds for these costly activities, and no other source is available to the LTBMU.	Objectives 1,4,5, and 7

Authority or Program	Proposed Enhancement	Specific Objective Addressed as Developed by the Stakeholder Team	Relevant Objectives as presented in section 4.1
USFS Cont.			
Federal Advisory Committee Charter	Renew charter of the LTFAC and amend its mission to participate in the SNPLMA project nomination and selection process; that is, the LTFAC would work with the Tahoe Working Group to ensure appropriate selection of projects.	The current LTFAC charter expires this year, and the committee must renew its charter in order to remain a functioning and influential entity in the Basin.	Objectives 1 and 7
All agencies working in Tahoe Basin			
SNPLMA Amendment (P.L. 108-108)	Authorize use of SNPLMA funds to establish the FAMU with neutral/non-aligned staff for programmatic management of the Federal portion of the EIP.	Currently, there is no dedicated staff or funds to secure the staff for important program management functions.	Objectives 1,4,5,6,7 and 8
SNPLMA Amendment (P.L. 108-108)	Encourage applicable Federal agencies in Tahoe to participate, where appropriate, in the FAMU.	Under current operating and funding structure, participation in FAMU may be inconsistent dependent upon changing agency priorities.	Objectives 1,4,5, 6, 7, and 8

6.0 STUDY TEAM-PROPOSED ENHANCEMENTS – ELEMENT III

As stated previously, the study team recognized the need for and developed several enhancements in addition to those developed by the stakeholder team. The purpose of these additional enhancements is to facilitate meeting certain objectives and develop a structure that supports the most efficient and effective implementation policies in the Tahoe Basin. These proposed enhancements and an identification of the relevant objectives as presented in Section 4.1 are included in Table 8.

Table 8. Study Team-Proposed Enhancements – Element III

Program Management General Enhancements	Proposed Enhancement	Relevant Objectives as presented in section 4.1
Collaboration	<ol style="list-style-type: none"> 1. Congressional funding, and support. 2. Federal agency commitment. 3. Regional, state and local agency commitment. 	Objective 4
Outreach/Education	<ol style="list-style-type: none"> 1. Fund as a project cost. 2. Fund as a part of overall program management activities. 	Objective 4
Program Management	<ol style="list-style-type: none"> 1. Use SNPLMA funds for program management of EIP projects through planning, design, and construction to improve Federal agency accountability in meeting ETCC's. 	Objective 6
Technical Evaluations		
Risk Evaluation and Corrective Action Plan for Shore Zone Wastewater Lines	<ol style="list-style-type: none"> 1. Draft and implement a capital replacement/rehabilitation plan, on the scale of the EIP, for wastewater system infrastructure. 	Objective 7
Groundwater Evaluation	<ol style="list-style-type: none"> 1. Support strong continuing role of research and science in the EIP. 2. Critical need for immediate analysis of the effects of stormwater runoff infiltration practices have on groundwater. 	Objective 7
Sediment Loadings and Channel Erosion Evaluation	<ol style="list-style-type: none"> 1. Support strong continuing role of research and science in the EIP. 2. Continue structured land use policy to regulate watershed disturbance. 	Objective 7
Urban Stormwater Master Planning Evaluation	<ol style="list-style-type: none"> 1. Initiate a comprehensive urban stormwater master planning strategy. 	Objective 7

Program Management General Enhancements	Proposed Enhancement	Relevant Objectives as presented in section 4.1
Transportation	<ol style="list-style-type: none"> 1. Develop a transportation threshold category 2. Accurately list transportation projects under new threshold category and determine attainment criteria. 3. Maintain Tahoe Transportation District, LTFAC, TMPO and FHWA coordination activities to develop Federal transportation project champions. 4. Modify Federal transit and transportation funding criteria, including TMPO funding, to be based on visitor and resident population of the area. 	Objective 7

7.0 REPORT CONCLUSIONS

The goal of the Framework Study was to develop a framework of activities (enhancements) that addresses the Federal challenges in implementing the existing environmental restoration program (EIP) in the Tahoe Basin. The study content and focus were developed jointly by the study team and stakeholders to identify logical changes to the current operation of Federal agencies implementing the EIP. The Framework Study included Elements: I, Stakeholder Team Enhancements; II, Baseline Conditions; and III, Study Team Enhancements.

7.1 Proposed Enhancements Related to Elements I and III

Stakeholder team and study team enhancements are proposed based on the results of the Framework Study. The stakeholder team enhancements include two types: management and Federal agency capability enhancements. Study team enhancements address a broader range of issues. Enhancements to Elements I and III are described in general below and more fully described in Sections 5.0 and 6.0.

7.1.1 Element I - Stakeholder Team Enhancements

Management Enhancements - Federal Agency EIP Management Unit (FAMU)

Currently, there is no formal organization or mechanism to ensure that all Federal EIP projects are integrated and coordinated by the Federal agencies in the Tahoe Basin. The FAMU is an enhancement aimed at ensuring that all Federal EIP projects are planned, prioritized, and scheduled in a programmatic manner, thereby providing the most cost-effective use of available funds (see Figure 9). Specifically, the FAMU would ensure that any project nominated for SNPLMA funding has been reviewed and considered by the stakeholder working groups in the Tahoe Basin. Section 5.1 provides a complete description of the FAMU.

Federal Agency Capability Enhancements

In addition to the FAMU, the stakeholder team also proposed enhancements for new, clarification, or expansion of existing agency authorities, policies, and procedures to allow for more efficient and effective implementation of the EIP. These enhancements are supported by the stakeholder team; however, they were not as fully developed as the FAMU. Further development is necessary to clarify the roles and responsibilities of the various Federal agencies participating in the EIP. These Federal agency capability enhancements are presented in Section 5.0, Table 7.

7.1.2 Element III - Study Team Enhancements

The study team focused on program management and general enhancements including those related to collaboration, outreach/education, and transportation, as well as enhancements related to the technical evaluations by the Corps. These enhancements were developed only to the level required to identify the objectives met. These enhancements are designed as integral steps toward meeting the Framework Study's objectives, but further collaboration with stakeholders is needed to fully develop and successfully implement them. See Section 6.0, Table 8, for a description of study team enhancements.

7.2 Baseline Conditions – Element II

Elements I and III are intended to support Element II. A flowchart that summarizes this process is provided in Figure 9. A summary of the baseline conditions is included in Section 3.0. The full text of this process as developed by the stakeholder team is included in Appendix D. The SNPLMA Executive Committee accepted the draft Tahoe-specific nomination and selection process in February 2004.

7.3 Continued Development of the Comprehensive Framework Program

While recognizing the constraints of the Framework Study, the study team concluded that in order to develop a comprehensive framework (that is, integrating Elements I, II, and III), additional future considerations are necessary.

The focus of these considerations should be to identify and analyze the potential implications of implementing a comprehensive framework program and presenting the results in a programmatic or comprehensive document. Specifically, the intended and unintended consequences of implementing Elements I and III (for example, identifying effects on existing non-Federal programs or State agencies) and environmental affects should be fully considered. Further, the manner in which implementation of Elements I and III would interrelate to and be affected by Element II should be considered carefully.

Focusing on continued development of the infrastructure and processes of a comprehensive framework will:

- Capitalize on the momentum generated during the Framework Study and the stakeholders' activities.
- Result in consistent progress toward improvement of water quality in Lake Tahoe.
- Assist in the attainment of the ETCC's used to measure environmental improvement in the Tahoe Basin.
- Allow for efficient use of Federal agency resources (including staff resources and SNPLMA funding).

7.3.1 Implementing Successful Change

Development of the infrastructure and processes needed to support a comprehensive framework is critical to the ongoing success in the Tahoe Basin. Ongoing assessment of the effects of implementing Elements I and III, as well as interrelating all elements, will likely reveal additional processes and infrastructure needed to address the complex and evolving needs of the Tahoe Basin. Some of these could include:

- Development of the agency policies and processes surrounding implementation.
- Definition of roles and responsibilities of entities involved.
- Definition of coordination and communication strategies for entities directly and indirectly involved.

- Definition of a structure to ensure accountability.
- Definition of public participation in the processes.
- Definition of staffing and funding requirements.

The success of the enhancements will require that the implementing agencies have the flexibility to respond to these evolving needs while being sensitive to other Tahoe Basin processes and programs. The existing stakeholder collaboration and congressional interest currently create an environment for implementing successful change in the Tahoe Basin.

FIGURE 9. Comprehensive Framework for Federal EIP Implementation

